

Bodleian Libraries

This book is part of the collection held by the Bodleian Libraries and scanned by Google, Inc. for the Google Books Library Project.

For more information see:

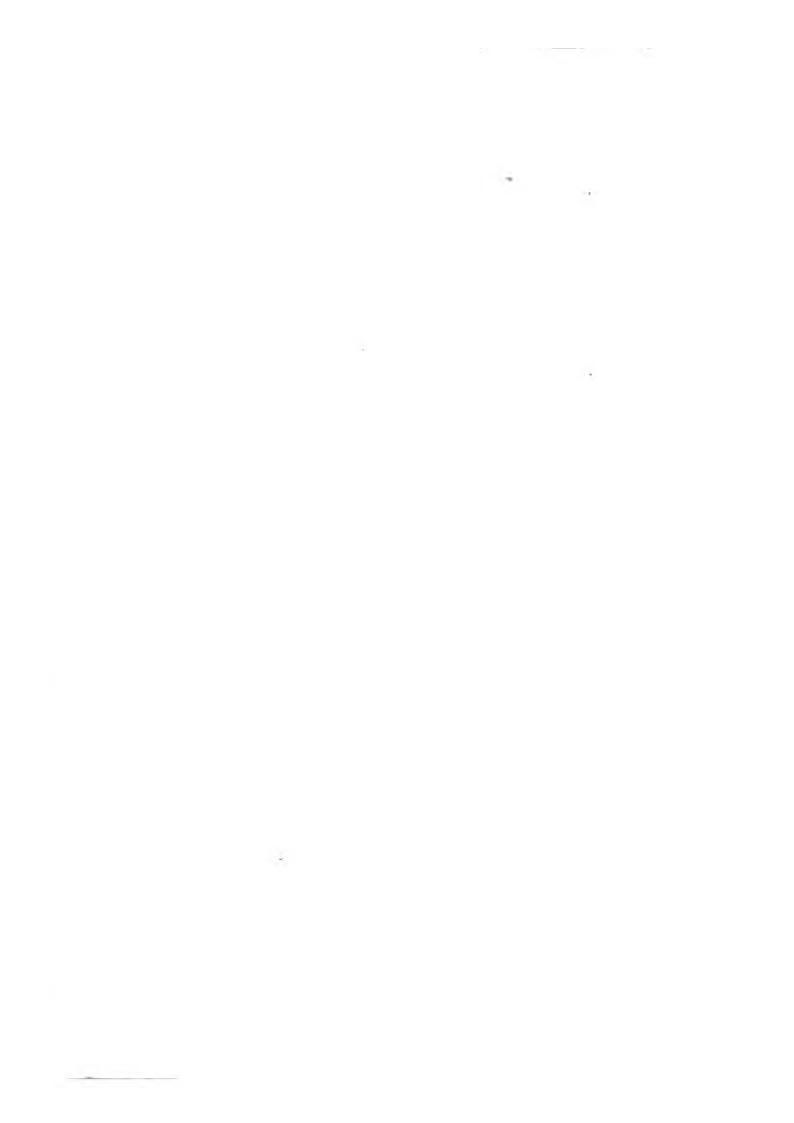
http://www.bodleian.ox.ac.uk/dbooks

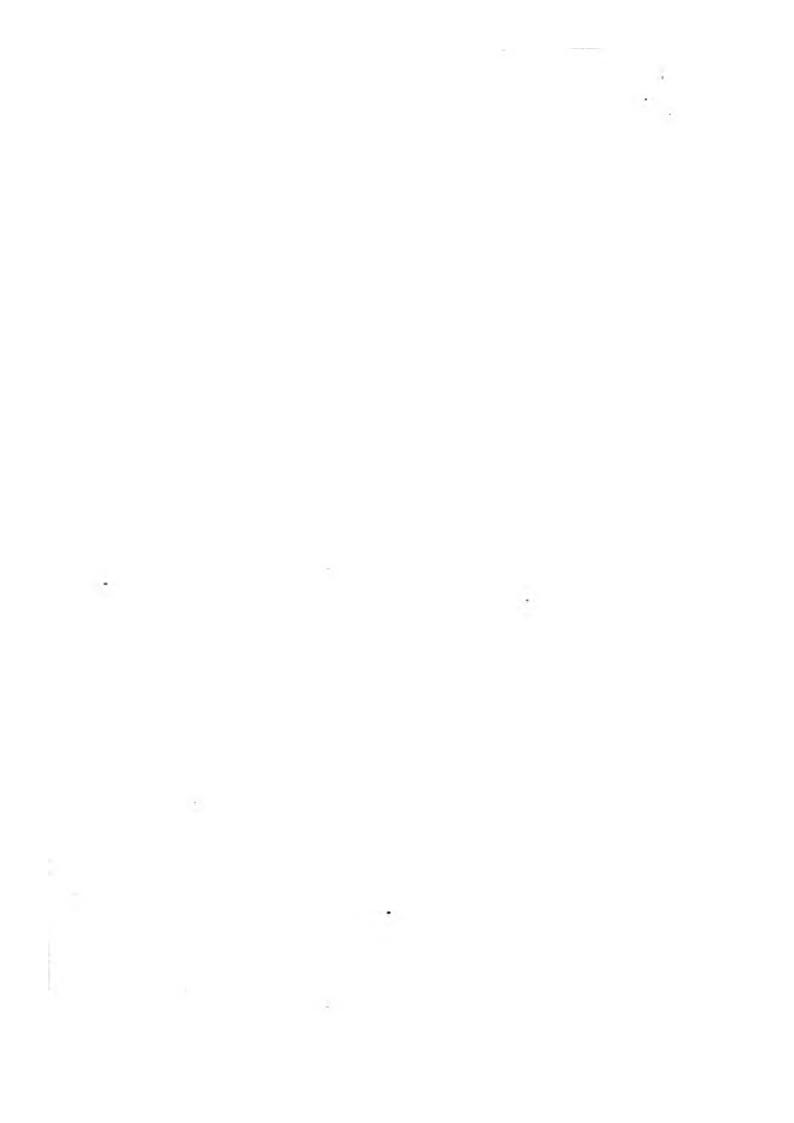


This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 UK: England & Wales (CC BY-NC-SA 2.0) licence.



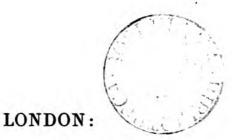
Per. 1512 e. 503 4





MEDICAL QUARTERLY REVIEW.

VOL. IV.



J. SOUTER, 73, ST. PAUL'S CHURCH-YARD;

SOLD ALSO BY BURGESS AND HILL; J. CHURCHILL; E. COX; J. HIGHLEY; RENSHAW AND RUSH, &c.

W. JACKSON, NEW YORK, AGENT FOR THE UNITED STATES.

1835.

J. AND C. ADLARD, PRINTERS, BARTHOLOMEW CLOSE.

CONTENTS

OF THE

MEDICAL QUARTERLY REVIEW,

No. VII. ARPIL 1, 1835.

	I.				
A Treatise on Insanity, and other James Cowles Prichard, M.D.	er Disorders A	Affecting t	he Mind.	Ву	1
	п.				
A Treatise on the Diseases of th By R. T. H. LAENNEC, M.D. T tiou, with copious Notes, by Jos with Plates	ranslated from	n the late	st French	Edi-	33
	III.				
The Nervous System, Anatomical tions of the various Parts of the and to which is prefixed, some coveries, of which the more reshown to be at once a Plagiaris ciated with Useless Experimen nor explained. Being the First siology, adapted to the advance Walker, Author of "Physiogeness of the part of the Physiogeness of the Phys	te Brain are for the Account of the Account of the Ecent Doctrine tesm, an Inversion test, which they set Volume of a ced State of A	r the first the Autho of Bell, M ion, and a have neit in original natomy.	Time assi r's earlies lagendie, Blunder, her unde System o By ALEX	igned; st Dis- &c. is asso- rstood f Phy-	46
	IV.				
DR. CLARK on Tubercular Phth Medicine)		e Cyclopæ	edia of Pi	ractical •	50
An Population of all his comme	v.		4.0		
An Exposition of the Nature, T Fever. By HENRY M'CORMA		Preventio	on of Cor	itinued .	60
	VI.				
Observations on the Causes and Leg. By J. C. SPENDER, M.R		Ulcerous	Diseases	of the	73

Reviews continued.

VII

VII.	
Traité complet de l'Art des Accouchemens, &c.	
A Complete Treatise on the Art of Midwifery; or, Theoretical and Practical Tocology, with a Compendium of those Maladies which complicate Pregnancy, Labour, and the Puerperal Condition, and of those to which Newborn Infants are liable. Sixteen Plates. By Alfred Velpeau, Professor of Clinical Surgery to the Faculty of Medicine at Paris; Surgeon to the Hôpital de la Pitié, &c. Second Edition, corrected and	8 5
VIII.	
Aufsatze und Abhandlungen aus dem Gebiete der Medicin, Chirurgie, und Staatsarzneikunde	
Essays and Dissertations on Points of Medicine, Surgery, and State Medicine. By Dr. Rust. Volume the First. With three Lithographic	116
1 1000	110
IX.	
Outlines of Botany; including a General History of the Vegetable Kingdom, in which Plants are arranged according to the System of Natural Affinities. By GILBERT T. BURNETT, F.L.S., Professor of Botany in	
King's College, London	133
х.	
Substance of a Clinical Lecture on a Case of Hydrophobia, delivered at the Charing Cross Hospital, Monday, November 24, 1834; to which are appended the Particulars of another Case admitted into the Hospital, October 21, 1834. By T. J. Pettigrew, f.r.s. &c. Surgeon to the Hospital	143
XI.	
The Epidemics of the Middle Ages. From the German of I. F. C. HECKER, M.D., Professor at Frederick William's University at Berlin. Translated by B. G. Babington, M.D., F.R.S. No. II. The Dancing	146
Mania	000
XII.	
A Treatise on the Formation, Constituents, and Extraction of the Urinary Calculus; being the Essay for which the Jacksonian Prize, for the Year 1833, was awarded by the Royal College of Surgeons in London. By John Green Crosse, Surgeon to the Norfolk and Norwich Hospital	156
XIII.	
The Philosophy of Health; or, an Exposition of the Physical and Mental Constitution of Man, with a View to the Promotion of Human Longevity and Happiness. By Southwood Smith, M.D., Physician to the London Fever Hospital, &c. Vol. I.	174
XIV.	
An Inquiry into the Nature and Causes of Lateral Deformity of the Spine; in reference, more especially, to the Pernicious Effects of certain Moral and Physical Influences, resulting from the Modern System of Female Education. By EDWARD W. DUFFIN, M.D. Second Edition	178

Reviews continued.

XV.	
Anatomical Description of the Parts concerned in Inguinal and Femoral Hernia. Translated from the French of M. Jules Cloquet; with Lithographic Plates from the original Etchings, and a few additional Explanatory Notes. By Andrew Melville M'Whinie, Assistant Teacher of Practical Anatomy at St. Bartholomew's Hospital	180
XVI.	
The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By Andrew Combe, M.D.	181
XVII.	
Transactions of the Society for the Encouragement of Arts, Manufactures and Commerce, for the Session 1833-1834; being Part I. of Volume L.	183

Original Communications.

1.	
On the Causes of some of the Symptoms which attend Diseases and Injuries of the Brain. By Mr. Mayo	185
ĬI.	
Some Account of a Tumour, induced by Hæmorrhage, from Rupture of the Nutritious Artery, within the Femur; with Comments on the Treatment. By John Howship, Esq. (With an Engraving.)	198
III.	
On the Thymus Gland. By W. F. Bow, M.D	207
IV.	
MR. KEY'S Case of Ulceration of the Cartilages of the Larynx .	214
MR. Key's Cases of Femoral Hernia and Impenetrable Stricture	216
v.	
Structure of the Placenta. Examination of the Hunterian Preparations at the College of Surgeons. From the Medical Gazette; with addi-	
tional Remarks, by Mr. MAYO. (With an Engraving.)	218
VI.	
Two Cases of Bronchocele, by James Dameram, Esq.	223

COLLECTANEA.

PATHOLOGY AND PRACTICE.

DR. Gölis's Treatment of t	he Disease	s of Child	ren			225
Dr. MAGISTEL'S Cases of U	lceration	of the Nec	k of the Ut	erus		240
Dr. CHAPMAN on Tic Doule	ureux					243
Case of Atresia of the Vi Thomas Jefferson Wh		duced by	Improper 7	reatment.	Ву	245
Use of Purgatives	,					246
Cases of Diabetes and Calc	ulus Rena	lis				247
Diagnosis of Ovarian Drops				100		249
Dr. TROUSSEAU on Trached		Attes	•			250
Dr. De Leon's Case of Isch	•	alie .	•			251
Bellingeri on Neuralgia	nuria reci	alis				ib.
Dr. Smith on Tumours of	the Neck	•	•		•	254
A Case of Congenital Deficie		th the Unn	er and Low	er Extremi	ties	201
By J. F. E. HARDY, M.D.		in the Opp				256
DR. DOMEIER'S Case of Po		Fish				257
Mr. CHEVALLIER on Syrup						258
Dr. STRAHL'S Experiments			digo in Spa	smodic Dis	eases	259
M. GUERSENT on Belladon						ib.
Dr. TRADINI on the Use of					0	260
Dr. STRAHL on Stammerin				•	•	261
	MISCE	LLANE	ous.			
M. GEIGER on the Varieti	es of Rhul	barb				264
Mr. Kyan's Patent for the I	reservatio	n of Wood	by Corrosi	ve Sublima	te	264
M. ARCHARD on the Chem	ical Effect	s of Electr	icity			ib.
Dr. RENTON on the Climat	e of Made	eira				ib.
Dr. Cummin on Medico-Le	4		266			
Cases of Persons falsely Im			3			269
Meteorological Register.						498
Notices .						ih

CONTENTS

OF THE

MEDICAL QUARTERLY REVIEW,

No. VIII. JULY 1, 1835.

Lectures on the Diseases of the Urinary Organs. By Sir Benjamin C. Brodie, Bart., v.p.r.s., Serjeant-Surgeon to the King, and Surgeon to St. George's Hospital	271
Clinical Illustrations of the more important Diseases of Bengal, with the Result of an Inquiry into their Pathology and Treatment. By WILLIAM	
Twining, M.R.C.S. Formulaire pour la Préparation et l'Emploi de plusieurs Nouveaux Médicaments; tels que la Morphine, la Codéine, l'Acide Prussique, la Strychnine, la Vératrine, l'Ether Hydrocyanique; le Sulfate de Quinine, la Cinchonine, l'Emétine, la Salicine, le Brôme, l'Iode, l'Iodure de Mercure, le Cyanure de Potassium, l'Huile de Croton Tiglium, les Sels d'Or, les Sels de Platine, le Chlore, les Chlornres de Chaux et de Soude, les Bi-carbonates Alcalins, la Grenadine, le Phosphore, l'Acide Lactique, l'Huile Volatile de Moutarde, &c. &c. Par F. Magendie. Huitième	290
édition, revue et augmentée	
Formulary for the Preparation and Employment of several new Medicines;	0011
such as Morphia, Codeine, &c. By F. Magendie	303
Outlines of Comparative Anatomy. By Robert E. Grant, M.D., &c.	
Professor of Comparative Anatomy and Zoology in the University of	
London, &c. Part I. containing Osteology, Ligaments, and Muscles;	010
illustrated with sixty-five Woodcuts	316
A Practical Compendium of the Diseases of the Skin, with Cases. By	
Jonathan Green, m.d.	324
The Life of Thomas Linacre, Doctor in Medicine, Physician to King	
Henry VIII. By John Noble Johnson, M.D.	337
Principles of the Treatment of Gout. By SIR CHARLES SCUDAMORE, M.D.	341
On Convulsions in Women during Pregnancy and Labour, and after Deli-	2.2
very. By A. Velpeau	347
Asthma, its Species and Complications. Illustrated by Cases, and Plates	
coloured from Nature. By Francis Hopkins Ramadge, m.D.	360
The Cyclopædia of Anatomy and Physiology. Edited by Rt. B. Todd, M.D.	364
The Transactions of the Provincial Medical and Surgical Association	369
Human Physiology, by John Elliotson, M.D. Cantab., F.R.s., &c.	395
On the Deaths of some eminent Persons of Modern Times. By Sir HENRY	
HALFORD, Bart., M.D., G.C.H.	411
A Dictionary of Practical Medicine. By James Copland, M.D. F.R.S. &c.	416
Diseases of the Chest. By CHARLES J. B. WILLIAMS, M.D.	419
A Grandmother's Advice to Young Mothers on the Physical Education of	
Children. By M. J., Countess Dowager Mountcashell .	423
The Jamaica Physical Journal. Edited by James Paul, Esq	427

Reviews continued.

The Sphygmometer, &c.						434
A Series of Twenty Plate various Fractures of th	e Extremiti	ies. By	G. W. H	ND, M.R.C.S.		437
A Therapeutic Arrangent JOHNSTONE, M.D.						440
Illustrations of the Botan Himalayan Mountains,	, and of the					
ROYLE, Esq., F.L.S., &				Description		441
Medical Zoology; being Animals which belong						
and Dr. J. T. C. RATZ		•				445
Orig	inal C	ommu	ınicat	ions.		
Cases extracted from the	Note-book	of HPN	DAVIE	SMD		446
Case of Morbid Adhesio						449
Case of Intus-susception					Esq.	451
Case of Traumatic Teta	nus, occurr	ing in th	e Norfolk	and Norwich		
pital. Reported by M						454
Account of several Cases				Communicate	ed to	
the Harveian Society, I	by WILLIAM	STROUT	, M.D.		•	459
	COLL	ECTA	NEA.			
PAT	HOLOGY	AND	PRACT	ICE.		
Report of the Surgical a	nd Ophthal	mic Inst	itution of	the Universi	ty of	
Berlin, for the Year 18						474
An Opium-Eater						482
Cases of Paralysis of Ind Accidental Occlusion of t						483
C. Hoillemin, D.M.P.						488
Dr. Hope on the Sounds						489
On the Reduction of Stra				1.153		495
History of a Unique Case			By SAM	UEL HANNA,	А.М.	501
On the Tricuspid Valve, of Fractured Pelvis: Hæmo			. mishin .	ha Daluia		503 505
rractured reivis. riæmo	iinage; Su	ppuration	within	the Petvis	•	303
	MISCE	LLANI	EOUS.			
Imaginary New Editions						506
The Rapidity of Thought						508
Inquest at Dublin						509
Diseases and Wounds of F	Plants	1.	1.		9	510
	INTE	LLIGI	ENCE.			
Society of Apotnecaries.	Regulations	to be o	bserved b	y Students int	ending	
to qualify themselves to						ib.
Biography of Dr. Maton				-2		519
Meteorological Register	· V		1.41		•	521
Notice to Subscribers						522

THE

MEDICAL QUARTERLY REVIEW.

REVIEWS.

A Treatise on Insanity, and other Disorders affecting the Mind. By James Cowles Prichard, M.D., F.R.S., &c.—London, 1835. 8vo. pp. 483.

THE high reputation of Dr. Prichard awakens expectations which are not disappointed by the work before us. We proceed, without preface, to give the reader some idea of its contents.

The first chapter is introductory, and treats of the defini-

tion and nosography of insanity.

If any argument were required to prove that medicine cannot at present be numbered among the exact sciences, that argument might be found in the fact, that definitions the very basis of all the exact sciences—are, generally speaking, impracticable in everything that relates to it; nay, further, that the attempt to frame them, so far from affording a firm basis of reasoning, has usually tended to retard the progress of knowledge, by excluding truths as unquestionable as those insisted upon; so that a medical definition is often at best but an insulation of a certain number of truths, to say nothing of its being occasionally an annunciation of opinions whose validity is more than doubtful. The definition of insanity has frequently exercised the ingenuity of medical writers, but to very little purpose; since we know of none hitherto proposed which may not be nullified by a moment's reflection. Dr. Prichard judiciously substitutes a general classification of the phenomena of insanity for a precise definition of the term, which is in effect a generic one, comprising species whose characters are mutable, and which is hence insusceptible of exact definition. Our author includes the principal forms or varieties of insanity under the following heads:

"1. Moral Insanity, or madness consisting in a morbid perversion of the natural feelings, affections, inclinations, temper,

habits, moral dispositions, and natural impulses, without any remarkable disorder or defect of the intellect, or knowing and reasoning faculties, and particularly without any insane illusion or hallucination.

"The three following modifications of the disease may be termed Intellectual Insanity, in contradistinction to the preceding form.

They are severally:-

"2. Monomania, or partial insanity, in which the understanding is partially disordered or under the influence of some particular illusion, referring to one subject, and involving one train of ideas, while the intellectual powers appear, when exercised on other subjects, to be in a great measure unimpaired.

"3. Mania, or raving madness, in which the understanding is generally deranged; the reasoning faculty, if not lost, is confused and disturbed in its exercise; the mind is in a state of morbid excitement, and the individual talks absurdly on every subject to

which his thoughts are momentarily directed.

- "4. Incoherence, or dementia. By some persons it may be thought scarcely correct to term this a form of insanity, as it has been generally considered as a result and sequel of that disease. In some instances, however, mental derangement has nearly this character from the commencement, or at least assumes it at a very early period. I am therefore justified in stating it, after Pinel, to be a fourth and distinct form of madness. It is thus characterised by that justly celebrated writer: 'Rapid succession or uninterrupted alternation of insulated ideas, and evanescent and unconnected emotions; continually repeated acts of extravagance; complete forgetfulness of every previous state; diminished sensibility to external impressions; abolition of the faculty of judgment; perpetual activity.'" (P. 6.)
- "If I am correct," continues Dr. Prichard, "in assuming that all the varieties of madness may find their place under one of the descriptions thus marked out, a short nosography of the disease, which will answer many of the purposes of a definition, will be furnished by summing up the characteristics of the different forms. We may, then, describe insanity as a chronic disease, manifested by deviations from the healthy and natural state of the mind, such deviations consisting either in a moral perversion, or a disorder of the feelings, affections, and habits of the individual, or in intellectual derangement, which last is sometimes partial, namely, in monomania, affecting the understanding only in particular trains of thought; or general, and accompanied with excitement, namely, in mania, or raving madness; or, lastly, confounding or destroying the connexions or associations of ideas, and producing a state of incoherence." (P. 7.)

This arrangement of mental disorders had been adopted by Dr. Prichard, before he had seen the work of Professor Heinroth, whose classification is similar in principle, but more minute. Our author gives an outline of Heinroth's system, which he regards as the most complete that could be formed,

but has found no reason for abandoning his own.

We do not quite agree with our author as to the perfection of the German Professor's arrangement, and think that Dr. Prichard has done quite right in retaining his own in preference. We regard Heinroth's definition of his second form as exceedingly faulty: "Depression; simple melancholy, dejection without illusion of the understanding." We cannot conceive any form of mental disease as properly included under this definition. If simple low spirits be meant, without the presence of any assignable cause of mental depression, half our ladies of quality are mad every forenoon; again, if it be meant that there is a state of mind in which the smallest evils cast an appalling shadow, we apprehend that such state always involves more or less disorder of the judgment, by which the relative importance of objects is incorrectly appreciated.

A man, for instance, feels his sensibility deeply and permanently wounded by every little unkindness on the part of his friends,—he is upbraided by his conscience for every small deviation from right, as if he had committed an enormous crime,—a slight pecuniary loss, which may really be of very little consequence, to him amounts to nothing less than utter ruin and beggary: in all these cases the judgment is perverted, not with reference to the fact, but to the importance to be attached to it. We never yet saw a case of melancholy in which there was not either an illusion created by the imagination, or a perversion of the judgment as to

matters of fact.

The second chapter treats of the phenomena of insanity, as manifested in the different forms of the disease.

"Moral Insanity. This form of mental derangement has been described as consisting in a morbid perversion of the feelings, affections, and active powers, without any illusion or erroneous conviction impressed upon the understanding; it sometimes coexists with an apparently unimpaired state of the intellectual faculties.

"There are many individuals living at large, and not entirely separated from society, who are affected in a certain degree with this modification of insanity. They are reputed persons of a singular, wayward, and eccentric character. An attentive observer will often recognize something remarkable in their manners and habits, which may lead him to entertain doubts as to their entire sanity; and circumstances are sometimes discovered, on inquiry, which add strength to his suspicion. In many instances it has

been found that an hereditary tendency to madness has existed in the family, or that several relatives of the person affected have laboured under other diseases of the brain. The individual himself has been discovered to have suffered, in a former period of life, an attack of madness of a decided character. His temper and dispositions are found to have undergone a change; to be not what they were previously to a certain time: he has become an altered man. and the difference has, perhaps, been noted from the period when he sustained some reverse of fortune, which deeply affected him, or the loss of some beloved relative. In other instances, an alteration in the character of the individual has ensued immediately on some severe shock which his bodily constitution has undergone. This has been either a disorder affecting the head, a slight attack of paralysis, a fit of epilepsy, or some febrile or inflammatory disorder, which has produced a perceptible change in the habitual state of the constitution. In some cases the alteration in temper and habits has been gradual and imperceptible, and it seems only to have consisted in an exaltation and increase of peculiarities,

which were always more or less natural and habitual.

"In a state like that above described, many persons have continued for years to be the sources of apprehension and solicitude to their friends and relatives. The latter, in many instances, cannot bring themselves to admit the real nature of the case. The individual follows the bent of his inclinations; he is continually engaging in new pursuits, and soon relinquishing them without any other inducement than mere caprice and fickleness. At length the total perversion of his affections, the dislike, and perhaps even enmity, manifested towards his dearest friends, excite greater alarm. When it happens that the head of a family labours under this ambiguous modification of insanity, it is sometimes thought necessary, from prudential motives, and to prevent absolute ruin from thoughtless and absurd extravagance, or from the results of wild projects and speculations, in the pursuit of which the individual has always a plausible reason to offer for his conduct, to make some attempt with a view to take the management of his affairs out of his hands. The laws have made inadequate provision for such contingencies, and the endeavour is often unsuccessful. If the matter is brought before a jury, and the individual gives pertinent replies to the questions that are put to him, and displays no particular mental illusion, a feature which is commonly looked upon as essential to madness, it is most probable that the suit will be

"Persons labouring under this disorder are capable of reasoning or supporting an argument upon any subject within their sphere of knowledge that may be presented to them; and they often display great ingenuity in giving reasons for the eccentricities of their conduct, and in accounting for and justifying the state of moral feeling under which they appear to exist. In one sense, indeed, their intellectual faculties may be termed unsound; they think and act under the influence of strongly-excited feelings, and persons accounted sane are, under such circumstances, proverbially liable to error both in judgment and conduct." (P. 12.)

Moral insanity has been recognised by Pinel as a distinct form of derangement; he calls it "emportement maniaque sans délire." The following is a characteristic instance given by this author.

"" An only son of a weak and indulgent mother gave himself up habitually to the gratification of every caprice and passion of which an untutored and violent temper was susceptible. The impetuosity of his disposition increased with his years. The money with which he was lavishly supplied removed every obstacle to the indulgence of his wild desires. Every instance of opposition or resistance roused him to acts of fury. He assaulted his adversary with the audacity of a savage; sought to reign by force, and was perpetually embroiled in disputes and quarrels. If a dog, a horse, or any other animal offended him, he instantly put it to death. If ever he went to a fête or any other public meeting, he was sure to excite such tumults and quarrels as terminated in actual pugilistic renconters, and he generally left the scene with a bloody nose. This wayward youth, however, when unmoved by passion, possessed a perfectly sound judgment. When he became of age, he succeeded to the possession of an extensive domain. He proved himself fully competent to the management of his estate, as well as the discharge of his relative duties, and he ever distinguished himself by acts of beneficence and compassion. Wounds, law-suits, and pecuniary compensations, were generally the consequences of his unhappy propensity to quarrel. But an act of notoriety put an end to his career of violence. Enraged with a woman who had used offensive language to him, he threw her into a well. Prosecution was commenced against him; and on the deposition of a great many witnesses, who gave evidence to his furious deportment, he was condemned to perpetual confinement in Bicêtre." (P. 14.)

Esquirol and Georget both recognise the same form of disease, and the former considers moral perversion as constant and essential in every species of madness. The affirmation of Esquirol is however much too general, as instances are not wanting in which patients, labouring under mental alienation, have exhibited an amiable, moral disposition, and an undisturbed flow of the natural affections. The ordinary connexion between insanity and moral depravity is nevertheless striking; indeed the latter is sometimes the earliest indication of the former. It is justly remarked by Dr. Haslam, that young persons who exhibit an uncontrollable disposition to vice, notwithstanding the influence of excellent moral precept and example, frequently become deranged in their in-

tellect as they advance in life.* It is equally true that when insanity is hereditary in a family, one member of it may be absolutely deranged, while another, with unimpaired intellect, shall exhibit a frantic violence in his passions, or an in-

veterate immorality in his habits.

It is an interesting inquiry to the physiologist, how far moral insanity may, in some cases, be connected with a perversion of those instincts which man possesses in common with the inferior animals, and which, though they are modified by reason, are in their nature independent of it. a woman loves her child instinctively the moment it is born, before she can have any moral reason for preferring it to the child of another,—she is attached to it by the powerful law of nature, which binds every female animal to its own offspring. The sexual instinct is still more obviously independent of the intellectual and moral nature. These instincts appear, in certain cases, to become perverted, so as to induce forms of moral insanity. Thus a woman is seized with an irresistible impulse to destroy her child, while the perversion of the sexual instinct induces a variety of humiliating phe-The consideration of perverted instincts affords a strong point to phrenology, which, regarding all our intellectual and moral powers as instincts, and localising them all in some region or other of the encephalon, refers a disordered state of the intellect, or moral feelings, to disease of the organs on which their manifestations depend; -to this subject however we shall have occasion to recur. There is a form of mental derangement peculiar to old age, which constitutes a variety of moral insanity.

"This disordered state makes its appearance in old men who have never before been insane or suspected of any tendency to mental derangement. It consists, like other forms of moral insanity, in a morbid excitement of passions and a remarkable perversion of the temper and propensities. The whole moral character of the person is changed. 'The pious,' says Dr. Burrows, 'become impious, the content and happy discontented and miserable, the prudent and economical imprudent and ridiculously profuse, the liberal penurious, the sober drunken.' In some elderly persons impulses which had long been effete become of a sudden excited, and a strong tendency to vicious habits is displayed. 'In fact the reverence which age and the conduct suited to it always command, is converted into shame and pity at the perversion of those moral and social qualities which, perhaps, have hitherto adorned the patient's declining days.' This description coincides accurately with the character of moral insanity. There are instances, though rare,

[·] Observations on Madness, p. 230.

of the appearance of hallucinative madness in old persons, but the case we have now described is of a different character. and consists in a disordered condition of the moral or active powers alone." (P.25.)

Monomania. This is the form of insanity formerly termed melancholia, which term is frequently inapplicable, since the hallucination under which the patient labours is sometimes quite the reverse of gloomy. The term monomania, first suggested by M. Esquirol, is of more general applicability, and expresses the characteristic feature of the affection.

"This form of insanity," says Dr. Prichard, "is characterised by some particular illusion or erroneous conviction impressed upon the understanding, and giving rise to a partial aberration of judgment. The individual affected is rendered incapable of thinking correctly on subjects connected with the particular illusion, while in other respects he betrays no palpable disorder of mind." (P. 26.)

It is generally believed that the monomaniac is perfectly sane on every subject but that of his own particular hallucination. As far as our experience goes, this is quite the reverse of the fact. We never saw a monomaniac who appeared to us perfectly sane on any one subject whatsoever. In fact, when we consider the constant disposition to recur to the favourite delusion, and the tendency evinced to bring every subject, however remote, to bear upon it, this alone argues so distempered a state of the associative faculty one of the most important in our whole mental constitution as to preclude the possibility of a healthy exercise of the intellectual powers in general. The fact that the patient may argue with great acuteness on indifferent subjects, is nothing to the purpose, because many patients will argue with equal ability on the very subject on which they are known to be A clever lunatic will often give better reasons for his insane convictions, than many a man in his senses for those tenets which he holds in truth and soberness.

Authors on insanity, however, as on other subjects, are fond of the marvellous; and nothing seems more wonderful, than that a man should be outrageously mad on one subject, and eminently lucid on all others. In our negation of this, we are happy to fortify ourselves by the more weighty testimony of Dr. Prichard.

"The notion, however, which many persons entertain as to the nature of this disease, is far from being correct in its full extent. It is supposed that the mind of the monomaniac is perfectly sound when its faculties are exercised on any subject unconnected with a particular impression, which in itself constitutes the entire disease. Cases are indeed on record, which, if faithfully related, fully come

up to this description. In general the real character of monomania is very different. The individual affected is, under ordinary circumstances, calm, and exhibits no symptom of that preturbation and constant excitement which are observed in raving madness. But on careful inquiry it will be found that his mind is in many respects in different condition from that of perfect health. The habits and disposition have, perhaps, been long, in a greater or less degree, in the state which characterises moral insanity. If we advert to the order and connexion of morbid phenomena, we often learn that on a settled and habitual melancholy, or on a morose and sullen misanthropy, long growing and indulged, or on some other disordered and perverted state of the feelings and affections, a particular illusion has more recently supervened. An individual of melancholic temperament, who has long been under the influence of circumstances calculated to impair his health and call into play the morbid tendencies of his constitution, sustains some unexpected misfortune, or is subjected to causes of anxiety; he becomes dejected in spirits, desponds, broods over his feelings till all the prospects of life appear to him dark and comfortless. His inclinations are now so altered that no motive has sufficient influence over him to rouse him to voluntary and cheerful exertion. During this period, if questioned as to the causes of his mental dejection, he will probably assign no particular reason for it. At length his gloom and despondency becoming more and more intense, his imagination fixes upon some particular circumstance of a distressing nature, and this becomes afterwards the focus round which the feelings which harass him concentrate themselves. This circumstance is often some real, occasionally some trifling act of delinquency for which the individual expresses the strongest and perhaps disproportionate self-condemnation. In other instances an unreal phantom suggests itself, in harmony with the prevalent tone of the feelings, which at first haunts the mind as possible, and is at length admitted as reality. Other individuals begin by indulging morose and unfriendly sentiments towards all their acquaintance, magnifying in imagination every trifling neglect into a grievous contumely. They fancy, at length, that they find in some casual occurrence glaring proofs of premeditated designs to ruin them and expose them to the contempt and derision of society. The disease in these cases has its real commencement long before the period when the particular illusion, which is only an accessary symptom, is discovered, and even before it became impressed on the imagination: but it is not until that impression has taken place that the case assumes the proper character of monomania." (P. 27.)

It is justly remarked by our author, that the illusion of the monomaniac usually bears a close relation to his former habits of thought; and that monomania generally supervenes on some disordered state of the moral feelings. In reasoning on insanity, much instruction may be derived from an attentive observation of what passes in our, own minds; for the mind of a maniac is composed of the same materials as that of a sane person—but their balance is lost, and the little world

of man is no longer "ponderibus librata suis."

Now it must have occurred to every man who has been much occupied with moral reflections, to dwell so long on some one point on which his feelings were deeply interested, that his judgment has begun to lose its ascendancy—the placid light of the intellect has grown dim, and the shadow projected by memory or conscience has broadened and deepened till it has cast its superstitious gloom over his whole moral nature, and he has felt the necessity of receding from the subject as one which his mind was no longer equal to grapple with, and of allowing his faculties to recover their wonted elasticity amid the diversions and occupations of ordinary life. Had he continued to indulge in such contemplations, insanity might have been the result.

Supposing a sane state of mind, there would appear to be this difference in the effect of too long continued attention to subjects of a purely intellectual, and to those of a moral character: in the former instance the mind becomes simply fatigued, and cannot get any further in the inquiry; in the latter there is a tendency to illusion, and the object is magnified or distorted: hence many men go mad of love or religion, for one who takes his start from mathematics or che-

mistry.

As the illusions of monomania are connected with the peculiar impressions which have been predominant in the mind of the individual, so they must necessarily partake largely of the genius of the age and country in which he lives—its politics—its philosophy—and its superstitions. Thus the Greeks were hunted by furies, the Jews possessed by demons, the Europeans of unenlightened ages bound by the spells of witches, and the men of better times mystified by the dreams of religious or political fanaticism, or tormented by the horrors of ideal pecuniary embarrassment.

It is not always easy to draw the line between hypochondriasis and monomania, since the illusions of the latter state

sometimes have reference to bodily ailments.

"A great number and variety of cases coming under the same head, of monomania associated with fear and despondency, are instances in which the apprehensions of the individual are concentrated on his bodily feelings, or relate to some diseased or preternatural state in which he conceives himself to exist. In the first stage this disease is hypochondriasis; the patient dwells constantly on some trifling ailments, which he magnifies in apprehension, broods over, and on account which he makes himself miserable. In this form hypochondriasis constitutes a variety of moral insanity, and a hundred cases of this description are to be found for one which actually makes the transition into erroneous belief. When this change has taken place, the disorder is accounted a decided one of insanity; as when a man fancies that his head has grown larger than his body, that his legs are made of glass, that he has a wolf or a fish in his stomach. The absurd ideas which the diseased imagination frames, in order to account for trifling bodily suffering, are as numerous as they are strange and surprising. well remember a lunatic who laboured apparently under neuralgic He fancied that the physician, to whose care he was confided, had the power of torturing him by electricity, and that invisible wires were spread through every part of the house, as conductors of the fluid, which was used at night as the instrument of cruel and tyrannical persecution. Many a flatulent hypochondriac has fancied the existence of a goblin or demon in his stomach; and the association between his internal feelings and the idea by which it was accounted for, has become so firm, that nothing in future has been capable of changing it. A case exemplifying this remark is related by Dr. Jacobi, which is so curious that I have determined to extract it.

"'A man, confined in the lunatic asylum at Würtzburg, in other respects rational, of quiet, discreet habits, (so that he was employed in the domestic business of the house,) laboured under the impression that there was a person concealed within his belly, with whom he held frequent conversations. He often perceived the absurdity of this idea, and grieved in acknowledging and reflecting that he was under the influence of so groundless a persuasion, but could never get rid of it. It was very curious to observe,' says Jacobi, 'how, when he had an instant before cried, "What nonsense! is it not intolerable to be so deluded?" and while the tears which accompanied these exclamations were yet in his eyes, he again began to talk, apparently with entire conviction, about the whisperings of the person in his belly, who told him that he was to marry a great princess. An attempt was made to cure this man by putting a large blister on his abdomen, and, at the instant when it was dressed, and the vesicated skin snipped, throwing from behind him a dressed-up figure, as if just extracted from his body. The experiment so far succeeded that the patient believed in the performance, and his joy was at first boundless, in the full persuasion that he was cured; but some morbid feeling about the bowels, which he had associated with the insane impression, still continuing, or being again experienced, he took up the idea that another person, similar to the first, was still left within him; and under that persuasion he continued to labour." (P. 31.)

A series of cases follows, illustrative of moral insanity and monomania, the relations of these forms of disease, and the transition of one into the other. The earlier cases have, with one exception, been already published by the author in the Cyclopædia of Practical Medicine, we shall therefore pass them over.

A number of similar cases have since been communicated

to Dr. Prichard, by several eminent practitioners.

He has received the details of nine cases from Mr. Hitch, the resident medical officer of the Gloucester Lunatic Asylum, who states that he could easily furnish a great number of instances coinciding with Dr. Prichard's description of moral insanity.

Among these is an uncommon example occurring in a child.

"In the spring of 1827 I was requested to visit the daughter of a farmer, it some branches of whose family insanity existed. The little girl was only seven years old. She was reported by her parents to have been a quick, lively child, of ready apprehension, mild disposition, affectionately fond of the members of her family, and capable of quite as much application to her school duties as children usually are. She had been sent home from school in consequence of a great change which had taken place in her conduct. She had become rude, abrupt, vulgar, and perfectly unmanageable; neglecting her school duties, running wildly about the fields and gardens, and making use of the most abusive language, when chidden for her misdemeanours. I found her in this state, with the addition of having become extremely passionate, in consequence of corrections to which she had been subject, and to escape which she was prone to invent falsehoods. She was also changed in her appetite, preferring raw vegetables to her ordinary food; and she would sleep on the cold and wet ground rather than in her ordinary Her parents had no controul over her; indeed she appeared to despise them in proportion as they kindly remonstrated with her. She was cruel to her young sisters; taking every opportunity to pinch or otherwise hurt them, when she thought she could escape observation. She could not apply herself to any thing, but had yet a perfect knowledge of persons and things, and a complete recollection of all that had occurred and of all she had learned previously to her illness. Her general health was much disordered: her little eyes glistered most brilliantly; the pupil was contracted, though expanding widely if she was suddenly excited; the conjunctiva was reddened; the head was hot; the surface of the body of about the natural standard; the extremities of a lower temperature, and the palm of the hand had as completely the peculiar feel of the nervous as a grown person; her person has a disagreeable odour; the bowels were much disordered, from the various strange things she had eaten. Dr. B--- saw her in conjunction with me; and we endeavoured to improve her general health, hoping that by so doing we should remove some exciting cause for her disturbed feelings: we were disappointed. As she grew worse, and her pa-

rents by mismanaging, sometimes humouring her, sometimes harshly correcting her, were likely to render her still more disordered, I took her into my own house, and placed her under the care of my wife. At this time she had taken to eat her own fæces, and to drink her urine, and she would swear like a fishwoman, and destroy any thing within her reach; yet she was fully conscious of every thing she did, and generally appeared to know well that she had done wrong. Having committed some mischief, or destroyed something which was fragile, she would often run to my wife, and exclaim, "Well! Mrs. H-, I have done it! I have done it! I know you will be angry, but I can't help it. I felt I must break it, and I could not let it alone until I had!" Amongst her pleasures was that of dirtying herself as frequently as she had clean clothes: indeed, she would rarely pass her excretions at the proper place, but reserved them for the carpet of the sitting-room, or for her own clothes. When she had accomplished this end, she would jump about and exult; but the little creature would often induce my wife to smile at her, when, with an expression of countenance, (which was always intelligent,) made up of cunning, feigned regret, and a subdued smile, she would say, "Well, Mrs. H-, 'tis too bad of me; 'tis really very foolish, and I will try to be better; but you must forgive me, because I am mad." At other times she would be so far conscious of her situation as to cry bitterly, and express her fears that she should become like her aunt, who was a maniac. In addition to all these indications she lied, stole any thing which she thought would be cared for, and either hid or destroyed it; and swore in language which it is difficult to imagine that the child could ever have heard.

"'I could never detect in her any fixed idea, either of fear or belief, which influenced her conduct. She acted from the impulse of her feelings, and these were unnatural and unhealthy.

"'She recovered in about two months.'" (P. 55.)

Mania. Our author is not diffuse on the phenomena of mania, or raving madness, nor is it necessary to be so. The utter subversion of the intellectual and moral powers, which constitutes this affection, defies classification; all the faculties are over excited without any permanent object on which to exercise themselves. Dr. Prichard gives, as a general illustration of this form of disease in its greatest intensity, an abstract of the description by Chiaruggi, which is cited with high commendation by Professor Heinroth.

"Among the phenomena of the first stage of this disease, we are at first struck by impetuous, audacious, shameless habits, a bold menacing aspect; the natural evacuations are deficient; the skin becomes of a slaty colour; the forehead contracted; the eyebrows drawn up; the hair bristled; the breathing hurried. The countenance begins to glow; the eyes become fiery and sparkling; the looks are wandering, and scarcely ever fixed; the eyelids are by

turns drawn widely open, and closely shut; the eyeballs are prominent, as if pushed forward out of the orbits. With this wild and menacing appearance is combined a patient endurance of hunger, and a remarkable insensibility of cold. If sleep visits the patient at all, it is short, unquiet, and easily disturbed. In the second stage, anger, violence, and the loss of reason, manifest themselves in their greatest intensity; shrieking, roaring, raging, abusive expressions and conduct towards the dearest friends and the nearest relations, who are now looked upon as the bitterest enemies. The patient tears his clothes to tatters, destroys, breaks in pieces whatever comes in his way. A striking and characteristic circumstance is the propensity to go quite naked. Whoever touches the patient is abused or struck by him. Strange confused ideas, absurd prejudices, occupy the mind. Stillness soon follows, or a murmuring sound, as if the patient were alone: on the other hand, when he is alone, talking and gesticulating as if he were in company. If such individuals are confined and tied during the height of their paroxysms, for their own security or that of others, nothing can be compared to the truly satanical expression which their countenances display. In this state they throw hastily away, with cries and shrieks, all the food presented to them, except fluids, which thirst compels them to receive. When, after some days, hunger begins to be felt, they swallow every thing with brutal greediness; they even devour, as it has often been observed, their own excrements, which, black and offensive, escape from them in great quantity, or smear with them clothes, beds, and walls. Notwithstanding his constant exertion of mind and body, the muscular strength of the patient seems daily to increase; he is able to break the strongest bonds, and even chains; his limbs seem to acquire a remarkable nimbleness and pliability, and a singular aptitude of performing movements and actions which appear almost supernatural. Chiaruggi saw a woman, who, clothed in a strait-waistcoat, and laced down in her bed like a child in a cradle, drew out her limbs from this double confinement, with the greatest nimbleness and pliancy. Bold, however, and impudent as such patients are, yet they are, according to common observation, although not without exceptions, easily daunted by a strong threatening voice, by the sight of stocks, by close though harmless restraint. After their violence has expended itself, they become still, gloomy, appear to be reflecting or brooding over something; but they break out again, before it can be anticipated, into a new storm of rage. At length comes on the third stage. A real cessation of violent paroxysms now ensues, exhaustion, sleep, though unquiet, disturbed by fearful dreams. The pulse is small, the aspect of the whole body squalid, the countenance pallid and meagre. The patient is obdurately silent, or sings and laughs in a strange manner, or chatters with incessant volubility. These uncertain intervals, which often put on the appearance of fatuity, are frequently interrupted by new but short renewals of violence. Memory for the most part remains unimpaired through all the stages, and during the highest intensity of the disease the senses appear to acquire an unusual degree of acuteness and susceptibility. A patient who had recovered described to Chiaruggi all the scenes of his wild reverie and long-continued mental preturbation. It has often been observed that maniacal patients of this description are never attacked by any epidemic, and are seldom affected by any contagious malady. According to Mead and many others, even consumptive disorders, dropsies, and other chronic maladies have disappeared on the accession of violent insanity. When patients are not freed from the disease after a succession of attacks, which come on like so many paxoxysms of fever, one or the other of the following events ensues: either the powers of mind are exhausted to that degree that the disease subsides into a permanent fatuity; or this appearance of fatuity is only a space of calmness interposed between relapses of violent madness, which now and then break out, like the eruptions of a volcano after a long period of repose; or the patient falls into a state of melancholy or of complete mental confusion; or, finally, his madness becomes chronical, and he scarcely recovers from this condition, in which seuse and understanding appear to be lost in incoherence. Chiaruggi saw a woman who had sat during twentyfive years on a stone-floor, in a fearfully demented state, beating the ground with her chains without ceasing by day or by night.' (P. 76.)

No particular examples are given. Cases of furious mania serve only to cover paper, and illustrate nothing in philosophy or medicine. It is often observed that violent mania soon arrives at a kind of imperfect crisis, the intensity of the symptoms abates, and the disease passes into a chronic state. M. Esquirol thinks that this change generally, or at least frequently, takes place within a month from the first accession of an acute attack.

Protracted Insanity. Our author observes that the ultimate tendency of insanity, is to produce a state of mental decay or dementia. The transition to this however is gradual, consisting of a stage of protracted mental derangement, in which the majority of patients in lunatic asylums are found to exist for years, and which sometimes continues during life, without ever terminating in complete dementia. This state is a combination of mania, or monomania, and dementia, in which the symptoms of these different forms of insanity are not distinctly marked, but in some measure blend and pass into each other.

"The symptoms belonging to one form of madness are often confounded with those of another, and from the combination there results, as it has been remarked by a writer of extensive observation and research, an assemblage of phenomena which bears little or no similitude to the description found in books and commonly entertained." (P. 80.)

Dr. Prichard animadverts with justice on the inaccuracy of the opinion, that in all cases of insanity there are successive periods of monomania, mania, and dementia. Insanity is a subject, of all others, on which it is easy to write imposingly, without a very large store of facts; a little talent for classification, and a little poetry of style, may give some cur-

rency to a work got up entirely in the closet.

Incoherence or Dementia. This is a state in which unconnected and imperfectly defined ideas chace each other rapidly through the mind; the powers of continued attention and reflection are lost, and even the perceptive faculty at length becomes indistinct. The term demence or dementia was first applied to this form of disease by Pinel. A similar term has long been vernacular in Scotland: when a man is conceived to have lost his wits, they say he is demented. Dr. Prichard, preferring native to exotic terms, proposes to call this state incoherence, which designation however is perhaps rather too indefinite to be applicable to any specific case of insanity, since many persons possessed of sufficiently good understanding, are prevented from exercising it by the volatility arising from defective education and absurd habits; and we fear that if incoherence is to be considered as a form of insanity, a great many of the fair sex, and not a few of the other, are in danger of finding their way into an asylum. Pinel has defined dementia to consist in "ideas incoherent among themselves, and bearing no relation to external ob-This definition he expands in terms which Dr. Prichard gives in the original, as being difficult to translate with precision. This difficulty, we conceive, arises from a want of precision in the original itself; the French are generally bad metaphysicians, and use the language of psychology in too lax an acceptation; we shall, however, attempt to give the English of the passage in question.

"A turbulent and incontrollable mobility, a rapid, and, as it were, instantaneous succession of ideas, which appear to rise and germinate in the understanding, without any impression made on the senses; a continual and absurd flux and reflux of chimerical objects, which alternate with each other, embarrass and destroy each other without intermission, and without any relation subsisting among them; the same incoherent but placid concourse of moral affections, of the sentiments of joy, sorrow, and anger, which, arising fortuitously, disappear without leaving a trace behind, and without having any correspondence with the impression of exter-

nal objects: such is the fundamental character of the dementia of which I speak." There is more sound than sense in all this; obscurity of thought is veiled by cloudiness of diction.

"Incoherence is either a primary disease, arising immediately from the agency of exciting causes on a constitution previously healthy, or it is a secondary affection, the result of other disorders of the brain and nervous system, which, by their long duration or severity, give rise to disease in the structure of those organs. The causes which produce the state of incoherence as an original disorder are nearly the same with those which in other cases excite madness in the first instance; they are such agents as break down the powers of the mind by their overwhelming influence, or destroy them by vehement emotions. Secondary incoherence or dementia follows long-protracted mania, attacks of apoplexy, epilepsy or paralysis, or fevers attended with severe delirium. This decay of the faculties has been termed fatuity or imbecility, and it has been confounded with idiotism, which in all its degrees and modifications is a very different state. The distinction, which is very important, has not always been kept in view by writers on disorders of the mind, and even in the works of Pinel we find it sometimes over-M. Esquirol has the merit of having drawn more accurately the line of discrimination. He refers to dementia all the cases of effete or obliterated intellect which are the results of maniacal or other diseases, and are incident to persons originally possessed of sound faculties, and includes those defects only under idiotism, which are original or congenital. 'The imbecile,' he observes, 'have never possessed the faculties of the understanding in a state sufficiently developed for the display of reason. The victim of dementia was once endowed with them, but has lost this possession. The former lives neither in the past nor the future; the latter has some thoughts of times past, reminiscences which excite in him occasional gleams of hope. Imbecile persons in their habits and manner of existence display the semblance of childhood; the conduct, the acts of the demented preserve the characteristics of consistent age, and bear the impress derived from the anterior state of the individual. Idiots and cretins have never possessed memory, judgment, sentiments; scarcely do they present, in some instances, indications of the animal instincts, and their external conformation plainly indicates that they were not organized to be capable of thought." (P. 85.)

The following table, extracted from Esquirol's treatise, exhibits the comparative influence of different causes in the production of dementia. The first column refers to patients admitted at the Salpêtrière in 1811-12; the second to those treated in M. Esquirol's private establishment, who were persons among the higher or more opulent classes of society.

Physical Causes. Number of	individuals.	Total.
Disorders connected with the catamenia		(1)
Critical period		3
Consequences of childbirth	5 3	1
Blows upon the head	3 () į
Progress of age		
Ataxic fever	1 2	
Suppression of hemorrhoids	0 2	
Mania	14 4	> 195
Melancholia	13 2	100
Paralysis	3 2	
Apoplexy	3 2	1
Syphilis and abuse of mercury	6 8	e P
Faults of regimen	0 6	10
Intemperance	9 6	
Masturbation	4 7	j
Moral Causes.		
Disappointed love	1 4	`
Fright	4 3	1
Political excitement	0 8	1 40
Disappointed ambition	0 3	₹ 40
Poverty	5 0	
Domestic griefs	8 4)
	192 73	235

Dr. Prichard describes the phenomena of dementia as referable to four distinct stages:

1. That of *impaired memory*, which obtains especially with regard to recent events.

2. That of irrationality—a total loss of reasoning power, arising from the absence of voluntary control over the thoughts.

3. That of incomprehension, in which the patient cannot

understand anything that is said to him.

4. That of inappetency, or loss of instinct and volition, in which the individual loses even his animal instincts, and does not obey the calls of nature.

He observes, that dementia approaches most gradually when it occurs as the accompaniment of old age, and that its several degrees are most distinctly recognised in such instances.

General Paralysis complicated with Insanity. There is a peculiar modification of paralysis which often accompanies the advanced stages of insanity, and especially those cases which are passing, or have already degenerated into de-"M. Esquirol was the first writer who directed the attention of physicians to this morbid state, and pointed out the incurable nature of insanity complicated with paralysis."

This form of paralysis is much more frequent in men than in women. Of 109 insane paralytic patients, who came under the care of M. Esquirol, at Charenton, during three years, 95 were males. The same author made similar observations at the Bicêtre, and the fact has been corroborated by Dr. Foville, chief physician to the asylum at St. Yon, NO. VII.

near Rouen. Of 334 lunatics at that institution, 31 were paralytic, and of these 22 were men. At Charenton, M. Esquirol has found the proportion of paralytics still greater, forming no less than one sixth of the whole number of patients; of 609 cases of insanity, 109 were also paralytic. The proportion of male to female cases is immense: thus of 366 male lunatics, 95 were paralytic; of 253 females, only 14.

M. Calmeil has marked three degrees in the general paralysis of the insane. The first degree is characterised merely by an impediment in the motions of the tongue, which renders the articulation imperfect, the patient drawling and stammering, like an intoxicated person; the tongue however can be naturally protruded, and the muscles of the mouth and face preserve their usual position. In the second degree the defect of articulation is greater, and the patient is incapable of uttering a word distinctly. The limbs are now affected with paralysis; the patient rises from his chair with difficulty, by fixing his hands upon its arms, and when he attempts to walk, his gait is tottering. When in the recumbent posture. he moves all his limbs with freedom. The upper extremities are less affected than the lower, yet in some instances the arms are impeded in their movements, and raised to the head with difficulty. The chin has a tendency to fall upon the chest, from the relaxation of the muscles of the neck, and the trunk is ill poised upon the pelvis, from the impaired action of its muscles. The senses in general are much obtunded; the patient however still continues to feel, see, hear, The excretions escape without notice, whether and smell. from paralysis of the sphincters, or the inattention of the patient-more probably the latter. Patients affected with this degree of paralysis, are generally in an advanced stage of dementia. In the third degree, the patient is nearly reduced to a state of vegetation. Articulation is almost or entirely lost. The patient cannot stand, and at last loses all power of moving the lower extremities; the hand and arms are less completely paralysed. Frequently no trace of intelligence remains; the patient waits till food is put into his mouth; he is insensible to the calls of nature, and though he still retains the senses of sight and taste, and perceives strong odours, he pays no attention to surrounding objects. In the first and second stages just described, the functions of organic life are nearly in a healthy state; the circulation is natural, sleep undisturbed, excretion is duly performed, and the flesh remains firm and plump. In the third stage however digestion is impaired, and the frame becomes emaciated. At length the integuments slough on those parts most subjected to pressure; ædema of the most depending parts supervenes, and hectic fever closes the scene. Death seldom occurs as the simple consequence of the cerebral disease, the abdominal or thoracic viscera being generally affected.

Dissection has proved, that this species of paralysis is almost uniformly connected with chronic inflammation of the substance of the brain, especially near its surface. servations of M. Calmeil on this subject will be presently alluded to. From numerous observations of M. M. Calmeil, Esquirol, and others, it results that this kind of paralysis commences in some instances a long time after the accession of insanity, in others simultaneously with it, while in a few it precedes it. M. Calmeil states, that at Charenton the paralysis generally supervened soon after the commencement of insanity. A few cases have occurred to M. Esquirol, in which patients seized with general paralysis have retained perfect vigour of intellect for some time, but have subsequently fallen into a state of mental derangement. mean duration of the paralysis of the insane, is stated by Calmeil at thirteen months; and he confirms the observation of Esquirol, that few patients survive longer than three years. The disorder is generally progressive, though a few individuals have suddenly recovered so far as to be able to walk several miles a day, and to resume, for a time, their ordinary occupations. The prognosis, however, is on the whole most unfavourable. M. Royer Collard, during twenty years' experience in a very large establishment, did not witness a single Esquirol and Calmeil agree in considering the malady as generally incurable; the former however has seen three, and the latter two, instances of recovery.

The eighth section of this chapter is on the state of the sensorial and intellectual functions, in cases of insanity. This is a subject which belongs quite as much to metaphysics as to medicine. It is moreover one whose successful exposition would require a more extended acquaintance with the philosophy of the mind, than has usually been evinced by medical writers; and a more exact agreement in the nomenclature and classification of the intellectual powers, than has hitherto obtained among psychologists, or is perhaps attainable in so abstract a science. We shall therefore content ourselves with recommending this section to perusal, as characterised by the same good sense and information which are

conspicuous in other parts of the work.

The ninth section is on Disorders of the Physical Functions attendant upon Madness. The phenomena proper to insanity are those connected with the disordered state of the mental faculties; to these however is superadded in many. perhaps in most, cases, more or less disturbance of the organic functions, as digestion, secretion, and excretion. Pinel is of opinion, that the primary disorder in cases of insanity, is seated in the stomach and intestines, and that the brain is sympathetically affected. Others have regarded the disease of the brain as primary, and the disorder of other parts as contingent upon it. Whichever of these views be entertained, and, in the present state of our knowledge, it would be extremely rash to adopt either with confidence, it is certain that derangement of the organic functions is very frequently coexistent with mental alienation. In mental disorders of slow accession, and especially in melancholia, the functions of the systems are generally torpid; the circulation is languid, the pulse feeble and slow, the skin cold and clammy, the bowels constipated, often in an extreme degree, the appetite bad, the digestion impaired, and, as a necessary consequence, the frame emaciated, and the strength diminished. In violent mania, on the other hand, symptoms of febrile excitement very generally prevail, and especially those indicative of increased determination to the head. The latter undergo occasional exacerbations during the progress of the disease: violent pulsation of the carotids, increased heat of the scalp, redness of the eyes, loss of sleep, and irritability of temper, precede or accompany each severe renewal of the maniacal symptoms.

The third chapter is on the terminations of insanity.

Insanity is usually considered as having three terminations: recovery, dementia, and death. The termination in dementia has already been mentioned.

Recovery is the event in a large proportion of cases, but the probability of a fortunate issue is influenced by the fol-

lowing circumstances.

The complication of insanity with other cerebral disorders. The most unfavourable complication is that of general paralysis; if this affection be present, even in the slightest degree, the case must generally be considered hopeless. Epilepsy is also a very unfavourable complication; it is much less so however in those cases where the fits occur only at periods of high maniacal excitement, as the effects of a transient cause, than in those where violent mania appears as the sequel or occasional interlude of inveterate epilepsy, which latter case is a very desperate one.

The form of the disease. This is of great importance with reference to the event. The following comparative statement of recoveries among the patients at Charenton, is

given by M. Esquirol.

Mania .	115	cases	ou	t o	f 226
Monomania	91				289
Dementia	3				99
	209				614

In the total number of cases are included 109 paralytics, 19 epileptics, and 4 idiots; so that the number of curable cases may be considered as reduced to 487, of which number more than two-fifths were restored. "It is remarkable," observes Dr. Prichard, "that the greater sanability of maniacs, in comparison with monomaniacs, had place only in males. From this it would appear, that monomania is comparatively a more curable disease in females than in men."

The period of the disease. This is a very important consideration; the chance of recovery being much greater when the case comes early under treatment. In the practice of Dr. Willis, nine out of ten are stated to have recovered when placed under his care within three months after the first attack. Under similar circumstances, Dr. Finch treated successfully 61 cases out of 69. Dr. Burrows cured 221 out of 242 recent cases; and the practice of the Retreat, near York, affords a proportion of at least seven recoveries out of eight recent cases.

A table of recoveries at the Gloucester Lunatic Asylum is given on the authority of Mr. Hitch, the resident medical officer, which affords similar results, and contains some examples of restoration to reason after so long a duration of insanity, as to show that we ought never absolutely to despair.

Age. M. Esquirol has found that the most favourable age for recovery is between the twentieth and thirtieth year, and that few are cured after the age of fifty. From the table of recoveries at Charenton, it appears that the greatest number of cures were in patients from twenty-five to thirty, and from thirty to thirty-five years of age. The proportion of recoveries diminishes progressively from the forty-fifth year on-The diminution is more abrupt in women, and more uniform in men. Cases occurring before the twentieth year are most numerous in males. In men the disease most frequently makes its invasion from twenty to twenty-five, and from twenty-five to thirty; in women between twenty-five and thirty. The experience of Charenton shows that advanced age does not preclude hope, twenty men having recovered after their fiftieth year; in which number are included four out of twelve lunatics who were more than seventy vears old.

Sex. Insanity has generally been observed to be more curable in women than in men.

Season, and the circumstances of the constitution, are alluded to by our author as modifying the prognosis; these

however we need not dilate upon.

The general proportion of recoveries in cases of all kinds is very differently estimated by different writers. The experience of Dr. Burrows affords 240 cures in an aggregate of 296 cases of various descriptions—221 in 242 recent cases, 19 in 64 old cases—giving an average of 81 in 100 cases of

all sorts, and 91 in 100 recent cases.

Dr. Jacobi ascribes the large proportion of recoveries in England to the practice which he believes to obtain in this country, of discharging patients from the asylums too soon after apparent restoration. In this gentleman's establishment at Sieburg, in Westphalia, 40 out of 100 cases were dismissed completely cured, and 6 with alleviation of symptoms. Dr. Prichard justly remarks, that Jacobi is certainly mistaken in supposing that patients are dismissed too early from lunatic asylums in England. "It is plainly not the interest of those who conduct private establishments to err on this side; and in most of the public hospitals in this country, the proportion of recoveries is by no means so great as to require such an explanation."

M. Esquirol has for many years been engaged in extensive researches into the statistics of lunatic asylums. In the Dict. des Sciences Med., he gives the following table of recoveries, taken from the reports of the French establishments.

Frenc	ch Lunatic A	sylums.		Dat	es.			Adm	issions.	Re	coveries.
	Charenton	from	Nov. 22,	1798	to	1800,	22	July,	97		33
				1803					499		161
	Salpêtrière		from	1801	to	1805			1002		407
			from	1804	to	1813			2005		1218
	_	***	from	1806	to	1807			531		286
	_		from	1812	to	1814			891		413
In M.	Esquirol's p	rivate estab	l. from	1801	to	1813		. •1	335		173
						Tota	ils		5360		2691

In a still larger calculation, contained in the Mem. Acad. Roy. Med., 4968 cures are reported out of 12,592 cases, treated at the Salpêtrière and Bicêtre. A more recent report of the same eminent observer, referring to the practice of Charenton in 1826-28, gives a proportion of recoveries amounting to one third of cases of all descriptions; and an official report, made at Paris in 1825, of the state of lunatic hospitals for the three preceding years, affords nearly a corresponding result; the recoveries being 34 in 100, including cases deemed curable and incurable. Esquirol has collected the following statements from English lunatic hospitals.

English Lunatic Asylums.				ates.				coveries.
In Bethlem Hospital .	from	1748	to	1794			8874	 2557
				1813			422	
In St. Luke's	from	1751	to	1801			6458	 2811
In York Asylum								 286
In the Retreat near York								 60
				To	tals		16516	 5918

"From these calculations," observes Dr. Prichard, "it appears that the proportion of cures formerly obtained in English lunatic asylums was in some instances less than that which is reported from the celebrated hospitals in France. This is the more remarkable when we take into our account the peculiar regulations of the great lunatic establishments of London. The hospitals of Bethlem and St. Luke impose certain exclusions, elsewhere unknown. They reject all patients who have been more than twelve months insane; those affected by paralysis, however slight, and by epilepsy or convulsive fits; idiots, the aged and infirm; those discharged uncured from other hospitals: there are likewise other exclusions besides those above mentioned, and all persons who have not recovered at the expiration of one year are dismissed. Yet, on comparing the reports of these hospitals with those of other institutions, the regulations of which are less favourable to a high proportion of cures, and where no selection or exclusion exists, we do not find, as Dr. Burrows remarks, the relative number of recoveries to be so great as might be expected. It is indeed surprising to observe that the reports of Bethlem Hospital, of a century and a half ago, give a greater proportion of cures than those of many years preceding 1817, when an improvement took place in the arrangements of that establishment. Dr. Burrows remarks on the authority of Stow, who derived his information from Dr. Tyson, physician to Bethlem Hospital, that 'from 1684 to 1703, 1294 patients were admitted, of whom 890 were cured, which is a proportion of two in three. But from 1784 to 1794, 1664 patients were admitted, of whom 574, or rather more than one in three, recovered." (P. 139.)

So great a difference could not be accounted for by any presumed inferiority of skill in the practitioners, or of arrangement in the institutions of this country; nor is there any reason to believe that any such inferiority existed. Since the removal of Bethlem Hospital to a new site, the average of recoveries has greatly increased. From a table supplied by Mr. Lawrence, it appears that, out of 2060 cases, admitted between 1819 and 1833, 1124, or considerably more than one half, were cured. The report of the Stafford Asylum, from 1818 to 1828, gives about 43 cures in every 100 cases; that of Wakefield County Asylum, from 1819 to 1826, about 42 in 100. A report of the Lancaster County Asylum, obtained by our author through Dr. Whalley, states a proportion of recoveries amounting to about 40 in 100 of the total number of cases (1750,) from 1817 to 1832. A report from

the Gloucester Asylum, drawn up by Mr. Hitch, and referring to the years 1823-32, gives a very favourable list of recoveries,—234 out of 516 cases; without taking into account a considerable number of recoveries, which afterwards took place among those dismissed as relieved and on trial. In this establishment there is no selection of cases, lunatics of all descriptions being freely admitted. Our author concludes his very ample and excellent view of this important subject, with a table obtained from Mr. Tuke, of York, from which it appears that, out of 334 patients, admitted into the Retreat in that city, from 1812 to 1833, 168 have recovered, 50 have died, 37 have derived no benefit and been removed, 10 have

left the asylum in an improved state, and 69 remain.

Termination in Death. Insanity is not, on the whole, a disease very dangerous to life; the disturbed state of the brain having reference rather to its operations as the organ of the mind, than to its general functions as a part of the corporeal frame. Many lunatics have remained in asylums for thirty, forty, or fifty years; nor are cases of unusual longevity wanting among the insane. Still, however, the brain is in a morbid state, and hence very liable to inflammation and congestion, with their ordinary results, as apoplexy, palsy, and convulsive affections, to which the insane are much more liable than other persons. Another mode in which madness terminates fatally, is by the exhaustion arising from continued excitement; the patient, continually restless, agitated, and sleepless, dies, worn out and emaciated. The symptoms of high excitement are most prevalent at the commencement of insanity; hence the mortality is greatest during the first two years, and especially the first. Esquirol states that, of 790 deaths in the Salpêtrière, between the years 1804 and 1814, 382 happened within the first year after admission, 227 in the second year, and 181 during the seven succeeding years. Many insane patients die of diseases of the abdominal and thoracic viscera. Such complications of insanity are too frequent to be regarded as accidental, although it may puzzle pathologists to account for them. We should be much disposed to regard defective innervation as a frequent cause of their occurrence; it being established, by the experiments of Dr. Wilson Philip, that the abstraction of the nervous energy from a part gives rise to disordered action of its mi-The coexistence of phthisis with insanity is so nute vessels. frequent as to have been made the subject of particular observation. M. Esquirol states, that phthisis often precedes or accompanies the invasion of melancholia. The patient loses his strength, and becomes emaciated; he has slow fever,

sometimes accompanied with cough and diarrhæa, while the symptoms of insanity are rather increased than diminished, and continue until death. On dissection, the lungs are found to be tuberculated, or affected with melanosis. Dr. Greding found that 40 out of 100 maniacs, and 20 out of 24 melancholics, laboured under phthisis: according to the same writer, 76 out of 100 maniacs, and 20 out of 24 melancholic patients, had effusion in one or both cavities of the pleura.

Diseases of the heart are not uncommon. M. Foville found some organic change in the heart or great vessels, in five out of six of all the bodies of lunatics which he examined after death, during three years: the most frequent morbid state was hypertrophy. Dr. Prichard concurs in the opinion of M. Foville, that these lesions are more frequently results of the continued violence done to the thoracic organs by the agitation, efforts, and cries of the patient, than predisposing causes of cerebral disease.

Diseases of the intestinal canal are frequent among the immediate causes of death. A protracted state of obstinate constipation is at length succeeded by, or alternates with, diarrhæa, which terminates in fatal dysentery. On examination after death, the intestines are found loaded with indurated matter, or empty and pale, with discoloured patches, abrasions, ulcerations, or gangrenous spots in the mucous coat.

In the advanced stage of insanity, cachectic disorders are prevalent; as scaly or papular eruptions, scorbutic affections of the gums, furunculi, and a disposition to sloughing in different parts of the body. These are accompanied by diarrhæa and griping pains, and the patient dies in a state of extreme emaciation.

Such are the more important of those causes of death which seem to have some peculiar relation to the state of insanity. There are some others to which, though they may be considered as accidental, the physical condition of insane patients renders them particularly obnoxious. Among these are pulmonary catarrh and typhoid fever: cephalic fevers are, as might be expected, peculiarly fatal to lunatics. The diagnosis of accidental diseases in the insane is attended with much difficulty, since they have a great tendency to make unfounded complaints, and either conceal or are insensible to the presence of real disease. Patients should therefore be carefully watched; and altered habits, and the expression of dejection and suffering in the countenance of a lunatic, should lead to an immediate examination of his physical state, as they probably indicate the approach of some serious malady.

The great mortality in cases of dementia is accounted for by M. Esquirol, on the ground that dementia is the ultimate condition to which all continued insanity leads, and the condition also which is most frequently complicated with paralysis. A much greater mortality has been observed among insane men than women, both at Charenton and in several English hospitals: this may be partly ascribed to the greater prevalence of paralysis in men. With respect to season, M. Esquirol has observed that December, January, and February,

are the most fatal months to insane persons.

The fifth section of this chapter is on relapses and recurrent insanity. In many instances, the recovery from madness is complete; in others, and perhaps the majority, the disease is curable only to a certain point, and the patient retains such a susceptibility to it, that, although he may be perfectly rational, a studious avoidance of all sources of mental inquietude is necessary to keep him so; and, even when all tendency to insanity appears to have passed away, the fact of its having once existed affords ground for fearing its recurrence; an observation which is true with reference to all the diseases of the nervous system.

The fourth chapter treats of the causes of insanity.

The predisposing causes are considered under the heads of constitutional predisposition, whether hereditary or original; of sex; of age; of temperament; of previous attacks of insanity, and other diseases of the brain; of education. These subjects are treated by our author with his usual judgment: several of them, however, have been already incidentally alluded to under other heads, and, on the whole, they are not of a nature susceptible of much new illustration. We therefore pass on to the third section, on the

Productive causes of insanity. These are divided into moral and physical; and the influence of these will be most accurately estimated by a reference to the comparative tables

given by Dr. Prichard.

In the fourth section, the moral causes of insanity are ably commented on. Some important calculations are stated in reference to the comparative frequency of insanity among married persons, the results of which are highly favourable

to the holy state.

The fifth section is on the physical causes of insanity. Those treated of by our author are, injuries of the head, insolation and exposure to heat, metastasis, intoxication, sensuality, intestinal irritation, morbid states of the uterine system. Under the head of intoxication, it is remarked that, among 336 lunatics in M. Esquirol's establishment, only three

appeared to have lost their reason through this kind of intemperance; while, in the public asylums in England, it is well known that, in a large proportion of cases, dram-drinking

has been the exciting cause.

The fifth chapter is on the Morbid Anatomy of Insanity. We have only space for some of the observations on lesions detected in the brain. Those of other organs, though properly noticed in so complete a treatise as Dr. Prichard's, are of minor interest, as being less uniform in their occurrence, and less essentially connected with insanity. The most important observations are those of

Greding, who has recorded the following facts:

"1. In the cranium. 'Experience has proved,' as he says, 'that the skulls of almost all insane persons have a natural shape.' Of sixteen cases only of the whole number examined, viz. nearly 220, the forehead was contracted, the temples compressed, and the occiput large and expanded. In a few the head was elongated and compressed at the temples. Some had a head almost round, or of a square shape: these were epileptic idiots. Two had small heads, quite circular: these were epileptic madmen. Of 216 cases, including those of madmen, idiots, and epileptics, the skull was unusually thick in 167: this fact was observed in 78 out of 100 cases of raving madness, and in 22 among 30 of idiotism. In many cases the cranium was remarkably thin. Holes were observed in the inner table in 115 out of 216 cases: in other instances bony projections from the inner surface.

"2. Membranes. Dura mater firmly adherent to the skull in 107 out of 216 cases; in a few instances of a blueish black colour, thickened and partially ossified. Pia mater thickened and opaque more or less in 86 out of 100 cases of mania; beset with small, spongy bodies in 92 out of 100: these bodies were often united to the surface of the brain, and were in some instances the seats of

ossific deposits.

"3. Brain. Cerebral substance softer than usual in 118 out of 216 cases: soft and pulpy in 51 cases of mania out of 100, as likewise in 19 out of 24 cases of melancholia, in 8 out of 20 epileptics, and in 16 out of 30 idiots. Those maniacs who had the cerebrum

softened had the cerebellum still more soft and pulpy.

"4. Effusions. Between the dura and pia mater in 120 out of 216 cases; in 58 out of 100 maniacs. Between the pia mater and the surface of the brain in 28 among 100 maniacs. Lateral ventricles in 29 very full of serum, in 23 ready to burst; in 10 among 24 melancholics astonishingly distended. Third ventricle quite full in 57 of 100 maniacs, and in 16 of 24 melancholics. Fourth ventricle ready to burst in 80 out of 100 maniacs, and quite empty in only 3: completely distended in every one of 24 melancholics.

"Other appearances. Plexus choroides in a nearly healthy state in only 16 out of 216 cases, thickened and full of hydatids in

96 out of 100 maniacs. Lateral ventricles either larger or smaller than natural in many cases. Softness of parts of the brain, as of the tubercula quadrigemina in some cases." (P. 210.)

Haslam, whose observations are deservedly familiar to the profession in this country: we shall therefore not quote them.

Georget, who has noticed the following appearances:

"Irregular conformations of the cranium, the prominences of which are developed irregularly, those of the right side being generally larger than those of the left; some skulls having the lateral diameter of equal extent with the antero-posterior, and the cavities of the base irregular in extent; some skulls, one in twenty, thickened partially or generally; more frequently the bones hard, white, without diploë, resembling ivory; some very light. Dura mater rarely changed; sometimes adherent to the skull, thickened, containing deposits of bone. Arachnoid displaying in places additional laminæ of a red or grey colour; sometimes thickened but smooth. Pia mater injected; or thickened and infiltrated with serum, giving at first the appearance of a gelatinous deposit. Volume of the brain sometimes less than the cavity of the cranium seems to require. Some brains very hard, cut with difficulty; the white substance glutinous, elastic, and suffering distention; more frequently the brain is soft, the grey matter being pale and yellowish, and the white substance discoloured, of a dirty white, the colour and consistence of these portions almost confounded. The convolutions separated by serosity, and the pia mater thickened. Interior cavities of the brain appearing in some instances very large, in others small, often filled with a serous fluid remarkably clear and limpid; plexus choroides exsangueous, containing hydatiform vesicles. Partial softenings of the brain; erosions, ulcerations of the surface of the ventricles. Cerebellum generally softer than the cerebrum; sometimes partially softened. Mesocephalon, medulla oblongata, and medulla spinalis rarely displaying morbid changes of structure."

Bayle, who, after extensive observations at Charenton, comes to the conclusion that the proximate cause of insanity is seated, not in the substance of the brain, but in its membranes, from the inflammation of which effusions follow, producing the symptoms of different degrees of compression of the brain, corresponding accurately with those of insanity in its progressive stages. With respect to M. Bayle's nouvelle doctrine, we have only to remark, that his anatomical observations differ from those of all other inquirers, and that his pathological views are altogether at variance with facts. The progressive symptoms of insanity are not those of gradually increasing compression of the brain: if they were so, a case of chronic hydrocephalus would be one of insanity; instead of which, it is well known that children affected with the former are usually particularly acute and intelligent.

Calmeil, who, labouring in the same field as the last-mentioned writer, has made his observations exclusively on the general paralysis of the insane; and most of the phenomena noticed by him agree with those which other morbid anatomists have found in connexion with mental derangement,

whether complicated with paralysis or not.

The consistence of the white substance is generally natural, except that, in a few instances, it is harder than usual in the convolutions. The grey substance contiguous to the pia mater is softened, and reduced to a pulp, to the depth of a quarter or half a line; it is separated into laminæ, of which the external adheres to the pia mater, and the colour of the cortical substance undergoes a peculiar change. All these phenomena are referred by M. Calmeil to inflammation of the cortical substance, which he considers as the proximate cause

of the general paralysis of the insane.

Foville. This gentleman has still more recently investigated the brain in cases of insanity. In many leading particulars, his observations agree with those of M. Calmeil; but certain appearances, which the latter regards as confined to general paralysis, are connected by Foville with mental derangement. M. Foville has remarked, in the cortical and medullary substances of the brain, various changes of consistence, colour, and nutrition. In the most acute cases of mania, the cortical substance has presented an intensely red colour, approaching to that of erysipelas. Among the chronic changes in this substance, the most frequent is an increased firmness and density of its surface, extending to no great depth, but constituting a distinct lamina, smooth externally, and internally irregular, which, when torn off, leaves the subjacent surface red, soft, and mammillated. colour of this superficial lamina is considerably paler than natural. M. Foville has noticed morbid appearances, somewhat similar to those just described, in the brains of wild animals which have died in a state of confinement. Among the appearances observed in the medullary substance, one of the most remarkable is an almost fibro-cartilaginous hardness. usually accompanied with a splendid white colour: the colour is not uniformly white, being sometimes yellowish or grey. This induration is conjectured by M. Foville to arise from a matting together of the cerebral fibres by adhesive inflammation. According to this writer, the fibrous mass of the hemispheres is formed by the superposition of several distinct layers of substance, connected by a very fine cellular tissue: these planes, which are easily separable in the healthy state. become inseparable in the induration of the brain accompanying madness. M. Foville found these morbid adhesions in all the cases of general paralysis which he examined, except two.

We must not omit to mention that this anatomist thinks he has traced some morbid alterations of the nerves, in connexion with hallucination of the senses: in a female lunatic who had been tormented by optical illusions, the optic nerves were found hard and semitransparent through a great part of their thickness.

The two principal inferences drawn by M. Foville from his researches, are: 1. That morbid changes in the cortical substance are directly connected with mental derangement.

2. That morbid changes in the white substance are directly connected with disorder of voluntary motion. The uniform detection of disease in the cortical substance in cases of general paralysis, induced M. Calmeil to ascribe the loss of muscular power to such disease; M. Foville, however, contends that this conclusion cannot be legitimately derived from the facts, since, in all his cases, although the cortical substance was diseased, there was also induration, serous infiltration, or softening in the white substance, and, in most instances, adhesion of the principal medullary planes to each other.

The sixth chapter is on the theory or pathology of mental

derangement.

Notwithstanding the labour and ingenuity that have been devoted to the subject, nothing is yet known of the real proximate cause of insanity; there is, however, one point connected with its pathology which admits of discussion: namely, whether insanity be a disease of the mind or of the body. It appears to us, however, not a little extraordinary that there should be two opinions on this subject among men accustomed to think, since the notion of disease of the mind is utterly incompatible with either of the possible views of our intellectual constitution. If, according to the doctrine of the materialist, thought is a mere function of the brain, as the biliary secretion is a function of the liver, insanity is merely a disordered state of this function—the soul, as an abstract thinking principle, being out of the question; if, again, there be in man an independent and immaterial thinking principle, of which we, for our own part, have no doubt, it is absurd to talk of this principle being diseased, except as a metaphor, since disease means deranged action in a material organism -at least, this is the only signification we can attach to the The notion that the soul or immaterial thinking principle is actually diseased in insanity, though generally abandoned in this country as entirely unphilosophical, has several eminent advocates in Germany, who build their opinion on

the unsatisfactory results of anatomical investigations, and the acknowledged influence of moral causes in the production of mental alienation. Professor Heinroth, who adopts this doctrine in its fullest extent, has deduced from it a conclusion as monstrous in morals as it is false in fact—namely, that moral depravity is the essential cause of madness! Certainly a most charitable and edifying persuasion, which would make Botany Bay your only lunatic asylum, and a halter the best remedy in inveterate cases! It is much to be wondered at that any man of sense and character should have ventured to promulgate so detestable an opinion. Heinroth has been fully answered by Jacobi, who refers to many examples of insanity occurring in the most pious and excellent individuals, and cites in particular the case of Madame Lavater, the wife of the celebrated physiognomist, a lady remarkable for her amiable character, who, at an advanced period of life, became insane, and continued for a long time in a state of the deepest She recovered her reason, however, some melancholy. months before her death, and evinced all the excellent dispositions which were natural to her.

Dr. Prichard observes that it would be easy to multiply such instances, if it were worth while to contend gravely

against the doctrine of Professor Heinroth.

The seventh chapter is on the treatment of insanity, which is, of course, resolved into therapeutical and moral. On the medical treatment our author is not very diffuse—wherein, we think, he shows his judgment; the subject is one on which very little can be added to what is already known. The principle which should guide our practice is simple. Of the actual state which constitutes insanity we are entirely ignorant; we cannot, therefore, at present hope to strike at the root of the disease; we know, however, that certain morbid conditions of the brain and other organs accompany its progress, and exercise an important influence on the event of the case; to these, therefore, the resources of medicine should be directed, according to the general principles of the science—always keeping in view, however, that we are not dealing with ordinary idiopathic affections, but with the accompaniments of a peculiar and generally a protracted malady. It is by moral treatment that we have most direct control over the mental disorder; but this is a subject which would fill a volume; and being sorely incommoded by lack of space, we must decline entering into it. For the same reason we must be silent on the subjects of puerperal insanity -idiotism-cretinism, and several other points which the reader will find amply and judiciously illustrated in the succeeding chapters.

The tenth chapter contains an accurate survey of the statistics of insanity throughout Europe; and the eleventh of unsoundness of mind in relation to jurisprudence. Under this head are some important observations relating to that form of insanity which our author has denominated moral, and whose existence and relation to legal decisions has been too little attended to.

The twelfth and last chapter treats of ecstatic affections, and especially of animal magnetism. The curious reader will here find much to his purpose in a full and candid survey of the history of this *pseudo-science*. When we call animal magnetism a pseudo-science, we by no means intend to assert that all the singular observations recorded by its proselytes are without foundation in nature; on the contrary, we believe many of them to be true; and we further think it possible that the investigation of this subject may lead to some interesting discoveries in the physiology of the nervous system; but when we hear of all the incredible phenomena of clairvoyance in its highest degree, in which the illuminated individual is enabled to outstep the limits of time and space, to penetrate the veil of nature, to dive into futurity, and to ascertain all that other people are doing, or ever will do, we must declare, in the words of Samuel Johnson, that "attention recoils from the repetition of a tale, which, when it was first heard, was heard with scorn." Philosophical toleration should be ample, but still it must have limits; and when doctrines are advanced repugnant to the plainest dictates of common sense, there is no illiberality in passing them by, as unworthy of attention. If animal magnetism be true to the extent that many believe, it must become an object of legislation as well as science; and we see no remedy for the evils of exalted magnetism but the horribly Draconic one of putting to death all clairvoyans, as persons entirely unfit for a mundane state of things, and whose existence is incompatible with the well-being of society. An inquisitive man, who pries into everything, and tells tales, is a most pernicious individual; but one who detects the present and future proceedings of all the world, is many degrees more dangerous than a mad dog; "hunc tu Romane caveto."

Several interesting subjects in Dr. Prichard's treatise we have been obliged to pass by without even alluding to them; but we regret our omissions the less, because we can conscientiously recommend the book to the reader's most attentive perusal. Though inferior to the works of Haslam in depth of thought and felicity of style, it is nevertheless the most elaborate, comprehensive, and useful treatise on insanity that

has yet appeared in this country.

A Treatise on the Diseases of the Chest, and on Mediate Auscultation. By R. T. H. LAENNEC, M.D. Translated from the latest French Edition, with copious Notes, by John Forbes, M.D., F.R.S. Fourth Edition; with Plates.—London, 1834. 8vo. pp. 675.

THE treatise of the immortal Laennec is so well known to the great proportion of readers, that it would seem almost a work of supererogation to set about a formal review of it at this period. Such, however, is not our intention. Dr. Forbes's translation, the first edition of which appeared many years ago, was the means of making auscultation known and employed in this country, although there is much reason to apprehend that prejudice still opposes its progress in many quarters. We have the best proof of the extent to which thoracic diseases, and their diagnosis, have interested the medical public, in the fact that the work at present before us is the fourth edition of Dr. Forbes's translation. A period of fifteen years has elapsed since the publication of Laennec's original treatise, and many improvements in auscultatory diagnosis, as well as other points connected with chest diseases, have taken place in that time: we purpose taking a review of these changes, as suggested to us by the very copious and valuable notes appended to the present edition.

Of late years, the original cylinder of Laennec has been turned and fined down into a delicate and portable tube, neatly tipped and inlaid with ivory: this modification, introduced by M. Piorry, is, we are glad to perceive, not approved by Dr. Forbes: it is faulty in having the conducting power of the wood impeded by screws and a thick cap of ivory, and he is of opinion that the one last used and recommended by Laennec is still the best, "with the only alteration of having the stopper made conical, in place of being rounded."

Within the last few years, the indefatigable researches of M. Piorry have brought percussion, as a means of diagnosis, very much into notice. M. Piorry employs percussion in a mediate manner: the following is our annotator's account of it.

"This improvement consists in interposing between the point of the fingers and the chest, a small plate of ivory on which the percussion is made; and from which circumstance, the inventor has, in imitation of Laennec, given the name of Mediate Percussion to his method. The ivory plate (which has received the name of Pleximeter or Plessimeter, from the words πλήσσω, I strike, or NO. VII.

πληξις, percussion, and μέτρον, measure,) is of a circular or ovoid shape, from an inch and a half to two inches in diameter, and about one sixth of an inch in thickness. It has either a raised edge or rim, or projecting handles, on its upper side, to permit its being held between the finger and thumb of the left hand, while it is struck with the right. In making use of this instrument, all that seems essential is to apply it accurately, closely, and consequently parallel to the surface. As in simple percussion, the blow may be made with one or more fingers, and must be rapidly executed, with the points but not the nails of the fingers; on this account the nails must be kept short. The pleximeter may be applied immediately on the skin or over some portion of the clothes; and, as in the case of the stethoscope, it is necessary on some parts to interpose a small pledget of lint or soft linen, to ensure its accurate apposition." (P. 23, note.)

The pain which is frequently attendant on immediate percussion, constitutes one of the principal objections to it, and is entirely obviated by M. Piorry's invention. Mediate percussion has also the advantage of enabling us to percuss in all parts of the thorax, and obviates many of the difficulties of percussing where the integuments of the chest are fat or anasarcous. M. Piorry considers that mediate percussion is much easier, and requires much fewer precautions, than the old method. "In direct percussion, we must never lose sight of the rule that the percussion must be made precisely in the same manner on the two opposite sides of the chest, to enable us to deduce safe conclusions from the resulting sounds." This precaution is unnecessary with the pleximeter, because we have here always the same flat, smooth surface whereon to strike, and an artificial wall everywhere, of equal density and elasticity.

Dr. Forbes mentions a more simple kind of mediate percussion, which is fully deserving the attention of the

student.

"This consists of the substitution of one or two fingers of the left hand for the pleximeter, the back of the fingers being uppermost. This proceeding possesses several of the advantages of M. Piorry's method; and it has even some few over it, exclusive of its greater simplicity. In cases where there is considerable emaciation, M. Piorry's method is liable to mislead, unless the intercostal spaces are carefully filled with some soft material; as, without this precaution, the sound may be modified by the hollow existing between the plate and the skin. Direct percussion on the ribs, or the employment of the fingers as a pleximeter, is often, in such cases, preferable. If we are careful in applying the fingers so as to make them fit accurately into the natural depressions, and thus form one body, as it were, with the thoracic parietes, we are often

enabled to use very forcible percussion without exciting pain, and also to elicit as definite sounds as by either of the other methods. This proceeding is free from another inconvenience which occasionally attaches to M. Piorry's method, especially in the hands of beginners. In the latter it sometimes happens that the loudness and sharpness of the primary sound arising from the contact of the two surfaces, are so considerable (particularly if the nail be used, which it ought never to be) as to drown, as it were, the secondary sound resulting from the modifying influence of the subjacent parts, from which modification it is that we form our judgment respecting the condition of those parts. When the fingers constitute the pleximeter, we have little or none of this immediate clatter when the blow is given." (P. 24, note.)

In looking through the chapters on the various signs ascertained by auscultation, we were particularly struck with the fact, which remarkably attests the extreme accuracy with which Laennec observed these sounds, that, since the publication of his last edition, all that he then stated has been confirmed in the most satisfactory manner; and the additions that have been made since that time are chiefly in exemplification or explanation of these sounds. under the head of Ægophony, that remarkable phenomenon of the voice which is heard in thoracic effusions, we find a note, by M. Meriadec Laennec, in which it is stated that "M. Reynaud has ascertained that, if an ægophonous patient lies on his belly, or leans forward, so as to bring the body into an almost horizontal position, not only does the ægophony disappear from the interscapular region, but is replaced by a bronchophony, of a greater or less intensity, according as the lung is sound or in a state of inflammation. In the latter case, as the ægophony vanishes, the crepitous rhonchus, or the bronchial respiration, reappears. From this M. Reynaud infers, that ægophony is merely a remote bronchophony,—that is to say, a bronchophony heard through a layer of fluid, of greater or less thickness." of our readers as may be familiar with Laennec's work will not fail to remember the experiments which he performed relative to this subject, as related at page 43 of the present He applied a bladder, half filled with water, between the scapulæ of a young man, who presented a wellmarked natural bronchophony in this point. "In this case," he adds, "it appeared to myself, and several persons present, that the voice, as transmitted through the liquid, became more acute, and also slightly tremulous, although less decidedly so than in real ægophony." From this it is obvious that Laennec's opinion as to the cause of ægophony was not very dissimilar to that lately expressed by M. Reynaud.

In speaking of the sound which is denominated frottement ascendant et descendant, or, according to the interpretation of Dr. Forbes, friction of ascent and descent, Laennec conjectured that, besides the interlobular emphysema, of which he considered it the pathognomonic sign, there was another lesion, which might give occasion to this sound of friction, viz. the existence of a cartilaginous, bony, tuberculous, or other indurated tumour, projecting from the surface of the lung. How far this conjecture was well founded, will appear from the observations of M. Reynaud, as detailed in the following interesting note of M. Meriadec Laennec.

"Subsequent observations have enabled M. Reynaud to establish the fact which Laennec only conjectured. The sound of friction is perceived in every case where the pleura is rough or uneven. It exists in pleurisy with little or no liquid effusion, and where the pleura is merely covered with a false membrane; and likewise in cases where the fluid is only in moderate quantity, and the free motion of the lung is not impeded by ancient adhesions. In this last case, when the lung, in certain positions of the body, rises above the level of the effusion, and rubs against the thoracic parietes, the sound of friction is heard immediately over this point. When the effusion becomes considerable, it disappears, and again returns when the fluid is lessened. In most cases the sound is perceptible by the application of the hand, as well as by auscultation: it may even be heard at some distance from the patient; and sometimes it is very perceptible to the latter. The sound of friction is not, it will now be perceived, exclusively confined to the case of pulmonary emphysema: it is met with in pleurisy, and may be regarded as a good sign, since it indicates that the effusion is not so great as to prevent the lung from being dilated, so as to reach the walls of the chest. Neither does it appear, as Laennec imagined. to be different in the two cases. I am even disposed to believe, that when it exists in emphysema, this affection is complicated with pleurisy. In confirmation of this, I may state, that in the notes of Laennec's own cases taken by myself, I find, almost always, this complication expressly named, where the sound of friction is recorded. The same observation applies to M. Reynaud's third case (Journ. Hebd. No. 65); and even Andral bears testimony to the accuracy of M. Reynaud's views. (Clin. Med. t. ii. p. 613, 2d Ed.)

"The foregoing pathological facts led M. Reynaud to examine whether there might not exist an habitual friction between the pulmonary and costal pleura in the state of health. And this seemed established by a priori considerations, namely, by the invariable formation of an accidental serous tissue wherever a false joint or accidental movement is established, and by the obliteration of the

articular serous cavities on the abolition of all motion of the parts. With the view of proving the fact, Mr. Reynaud made an experiment on a living animal, and believed that he could distinctly perceive the motion of the lungs against the ribs during inspiration and expiration. In the state of health, the sound produced by this friction of the parts is not perceptible, owing to the slippery smoothness of the two membranes, or is confounded with that of the respiration; but when the natural condition of the parts is altered by inflammation or any other cause, it then becomes manifest. (See Journ. Hebdom. de Med. No. 65.)—M. L." (P. 58, note.)

For the amusement, more than for the instruction, of our readers, we transcribe the following note by the translator, which will be found towards the end of the section on Hooping-cough.

- "The following is a brief synoptical view of the principal opinions promulgated by the moderns concerning the seat and nature of the hooping-cough, with the names of their chief supporters. It is proper, however, to remark, that several of the writers included under the same head, although agreeing generally as to the nature of the disease, sometimes advocate considerable and peculiar modifications of the common doctrine.
- "1. A nervous disease, according to the common acceptation of that term.—Cullen; Böhme; Guibert.
- "2. An idiopathic affection of the pulmonic and diaphragmatic nerves.—Hufeland; Jahn; Lobenstein; Albers; Wendt; Paldamus.
- "3. A nervous affection of the lungs, from sympathy with other organs but chiefly with the stomach and bowels.—Stoll; Butter; Waldschmidt; Chambon; Danz(?).
- "4. A catarrh of the lungs and stomach. 'Affection pneumogastrique pituiteuse.'—Tourtelle.
- "5. The same, but conjoined with a spasmodic affection of the
- glottis and diaphragm.—Gardien; Millot.

 "6. Primary affection of the brain, exciting spasmodic affection
- of the respiratory apparatus.—Leroy; Boisseau; Webster; Otto; Begin.
 - "7. Inflammation of the larynx and glottis.—Astruc; Dawson.
- "8. Primary bronchitis, or pulmonary catarrh, inducing directly spasm of some part of the respiratory apparatus.—Darwin; Watt; Marcus; Laennec; Broussais; Guersent; Dewees; Fourcade-Prunel; Duges.
- "9. Primary bronchitis inducing cephilic irritation, and this in its turn exciting the spasmodic affection of the respiratory organs.

 —Desruelles.
- "10. Insects irritating the bronchial membrane.—Rosenstein; Linnæus." (P. 93, note.)

So much for the certainty of our knowledge of those diseases which leave no constant traces of morbid structure!

We cannot pass by the chapter on Pulmonary Apoplexy, without one or two remarks. This name was given by Laennec to that morbid condition of the pulmonary structure which is consequent on extravasation of blood into it. "From its exact resemblance," he says, "to the effusion that takes place in the brain in apoplexy, I have thought the name Pulmonary apoplexy very applicable to it, as it resembles, in every respect, the cerebral hemorrhage commonly termed apoplexy." There are some who, in their hypercriticism, object to this term, inasmuch as there are no symptoms analogous to those of cerebral apoplexy; yet we have ever thought that the suddenness which characterizes the hæmoptoic seizure, and the prostration which follows, are by no means inconsistent with the designation "apoplexy:" and when we add to this the similarity in organic changes, we cannot reject a term which so completely associates this disease with one which in its essence is precisely similar. This similarity, or "perfect analogy," has lately been completely established in a thesis by M. Roupel (Recherches sur les Hemorrhagies, Paris, 1827,) and in the recent treatise on Apoplexy, by Cruveilhier, (Dict. de Med. et Chir., art. Apoplexie.)

"We may observe" (says Meriadec Laennec,) "in the lungs, as in the brain, and indeed in most of the other organs, the three forms of hæmorrhage, viz.—1. The blood-stroke, (coup-de-sang,) an instantaneous and universal congestion without any escape of blood from the vessels; of this form the lungs offer an example in the case of asphyxia, in which the pulmonary tissue, without losing its wonted crepitation on being handled, is coloured of a dark red hue, and pours out, when incised, a profusion of fluid black blood: 2. Apoplexy, properly so called, such as is described in the text, and varying from simple infiltration to the largest coagula of blood, with rupture of the vessels and laceration of the organ; 3. Slow hæmorrhagic infiltration or splenisation, in which the tissue of one whole lung or one lobe slowly and progressively penetrated by blood, assumes a darkish red colour, and becomes smooth, heavy, hemogeneous, and friable as the spleen, with the organization of which it presents a resemblance more or less close. This last variety of pulmonary apoplexy is common in old persons who have been long confined to bed in one posture. It is also observed after diseases of an adynamic kind, whether acute or chronic. The splenised portions are sometimes softened partially or totally, being converted into a sort of blackish paste, which we might mistake for the effect of putrefaction. In some cases these portions are intermixed with spots of the inflammatory hepatization, recognized by their red or yellowish colour, and which contrast well with the dark ground of the general mass.—(M. L.)" (P. 172, note.)

It is a doctrine now very commonly received, that pneumonia most commonly attacks the lower lobes of the lung; and upon this Laennec founded one of his strongest arguments against the Broussaian doctrine of the inflammatory origin of tubercles, which, it is universally admitted, have a marked predilection for the upper lobes. It does not appear, however, that the subsequent experience of MM. Andral, Chomel, and Frank, which has been referred to in a note by our translator, very fully confirms this opinion of Laennec. Andral found that, out of 88 cases of pneumonia, the inferior lobe was affected in 47, the upper lobe in 30, and the whole lung in 11; and Chomel states (Dict. de Med.) that, in 59 cases, the upper lobes were affected in thirteen, the lower in 11, and the whole of one lung in 31, the posterior parts in two, and the middle in one; and Frank says, "Frequentius forte superiores pulmonum lobos inflammatos deteximus."

The greater frequency, however, of the occurrence of pneumonia on the right side than on the left, as stated by Laennec, and before him by Morgagni and many others, has received the fullest confirmation. Andral found that, out of 204 cases of pneumonia, the right lung was affected in 121 cases, the left in 58, and both in 25; and Chomel says, that, in 59 dissections, the right lung was affected in 28, the left in 15, and both in 16. Lambard states that, of 868 cases of pneumonia, 413 were on the right side, 260 on the left, and 195 on both. Dr. Forbes adds, "The general result of these cases is, that, out of a total of 1131 cases, the right side was affected in 562, the left in 333, and both in 236. Taking these results in round numbers, and approximating and assuming them to give a fair view of the general habitudes of the disease, we would say that, out of every ten cases of pneumonia, we might expect five, or one half, to be confined to the right side, three to the left, and two to extend to both."

Of all the stethoscopic signs, Laennec regarded the rhonchus crepitans as the most practically useful, inasmuch as it points out, in its very earliest stage, one of the most common and most severe diseases. In this, we have no doubt, every practical physician must agree with him; yet it is to be remembered, that pneumonia may be present, and yet the rhonchus crepitans absent. This is Chomel's opinion, who likewise states that this rhonchus may be present

in cases where the existence of inflammation is extremely doubtful. Cruveilhier likewise greatly undervalues this sound as a sign in pneumonia, especially when compared with those of bronchophony and tubary respiration. M. Meriadec Laennec makes the following judicious remarks relative to the doubts that have been expressed by some as to the value of the *rhonchus crepitans*.

"The doubts of men so eminent as Andral, Chomel, and Cruveilhier, demand from us some investigation whether there may not exist certain circumstances calculated to produce mistake respecting the value of the crepitous rhonchus. In the first place, it is possible that the obscure mucous rhonchus may be mistaken for it, the more so because the two are nearly allied both in their cause and character, and are, in truth, not easily discriminated by the most experienced. Secondly, the crepitous rhonchus may have been really heard during life, and yet no trace of inflammation be found after death, because this has taken place during the stage of resolution of the pneumonia. Thirdly, pneumonia may actually be present and yet the rhonchus be wanting, from the circumstance that the respiration is too feeble to force the air into the engorged vesicles, owing to the age of the patient, or the debility produced by preceding disease. For an analogous reason, of an opposite kind, the crepitous rhonchus may be sometimes perceptible when there is no pneumonia, in the case of children, the extreme power of whose respiration may excite in their diminutive bronchial ramifications a mere mucous rhonchus with bubbles as small as those which constitute the crepitous.—(M. L.)" (P. 195, note.)

The chapter on Phthisis Pulmonalis is enriched by the addition of several notes from the pen of the French editor, as well as of the English translator. Since Laennec's time, morbid anatomists have been much occupied by researches into the nature and mode of development of tubercles, especially as they appear in the lungs. We proceed to inquire whether any, and what, advances have been made towards the acquisition of correct views respecting the pathology of this disease.

According to Laennec, tubercle first appears as a miliary granulation, supposed by Bayle to be a production different from internal; an opinion likewise maintained by Andral and Chomel. The second stage was that of the miliary, the third the crude, and lastly the encysted, tubercle. Laennec, it will be remembered, also thought that miliary tubercles were accidental productions, possessing a proper vitality, and growing by intussusception. When the tubercle has arrived at the stage of crudity, its next tendency is to become soft and fluid. "The process," says Laennec, "begins in

the centre of each mass, and gradually increases the tuberculous matter, becoming daily softer and moister, cheesy, at least unctuous to the touch, like soft cheese, and finally acquires the viscidity and fluidity of pus." These views have, however, been objected to by several pathologists. most of whom regard tubercle as the result of a morbid secretion, which may be excited or promoted by inflammatory action, but occurs more commonly in consequence of a general predisposition, congenital or acquired; and which predisposition seems, in its turn, to be the result, at least most frequently, of an altered condition of the fluids. The original opinion of Bayle, respecting the distinctness of pulmonary granulations from tuberculous matter, is maintained by those pathologists, especially Andral, in opposition to that of Laennec, who considered them to be related to each other, as green fruit is to ripe fruit. (P. 255.) Andral regards these granulations as the result of very limited pneumonias. and does not admit the existence of the grey tubercle of Laennec; the change of structure to which that name has been applied being a mere variety of chronic inflammation, within which true tubercle is frequently developed, though by no means as a necessary consequence.

M. Rochoux, following some observations originally made by Dalmazzone, concludes that tubercle is neither an accidental production nor a secreted matter, but a degeneration or transformation of a healthy tissue into a morbid one; and Dr. Baron, whose opinion is supported by Dupuy, of the Ecole Vétérinaire at Alfort, contends that all tubercles are, in their origin, transparent vesicles or hydatids; upon which M. Meriadec Laennec remarks, "This opinion is evidently that of a man little versed in the researches of pathological anatomy, and more conversant with slaughter-houses than dissecting rooms, who has not been able to discriminate the distinctive progress of each of two morbid alterations fre-

quently coexisting." (P. 258.)

Dr. Carswell coincides with Andral and Cruveilhier as to the formation of tubercle by secretion. He offers an explanation of the apparent commencement of softening in the centre, by supposing that the tuberculous matter is deposited from the mucous lining of the bronchus, and encloses in its centre some of the mucus secreted by that membrane. When this is cut, the mucus appears as a soft point in the centre of the tubercle, which Laennec regarded as the commencement of the softening process. In some instances no such appearance is visible, and in these cases the bronchi or aircells must have been completely filled with the tuberculous

deposit. Dr. Carswell questions the correctness of the term "encysted," the imaginary cyst being nothing more than the walls of the air-cell in which the tubercle is deposited.

It may well be doubted, then, whether any addition has been made to our knowledge of the anatomy of tubercle subsequently to the time of Bayle and Laennec. That which most baffles our efforts is the primary origin of these formidable morbid productions; and although, in reasoning analogically, there seems to be strong reason to consider the theory of the secretion of tubercle the correct one, yet we want demonstrative evidence of the fact, and probably shall ever continue to want it, as regards this as well as all the other secret operations of nature. Although much has been added to the statistical details respecting phthisis, we see no progress towards such a mode of treatment as will eradicate the disease: the curability of it, however, is now fully established and admitted, and we are thus in some degree encouraged to proceed in our efforts to arrive at some more powerful method of therapeutics.

We pass over the section on Asthma and Diseases of the Pleura, as they present little of novelty; not omitting, however, to recommend to the perusal of our readers some very good remarks, by Dr. Forbes, on the treatment of asthma, in a note of some extent, in which he has related and compared the various plans of treatment proposed or adopted for the cure of that disease.

We now come to that portion of the work which was confessedly left by Laennec himself in the least perfect state: we mean the application of auscultation to the diagnosis of diseases of the heart and great vessels. It is well known that even the sounds afforded by the normal action of the heart's cavities can hardly be said to be perfectly understood. deference naturally paid to so accurate an observer as Laennec led physicians too much to take for granted the correctness of the statement made by him respecting the heart's action. However, it was ere long discovered that his hypothesis was inadequate to guide the physician in his diagnosis of heart-disease, and numerous researches were undertaken in support of various theories. There are but two sounds audible, the one rapidly follows the other, and then a marked interval of repose is manifest. One of these sounds is synchronous with the impulse of the heart against the parietes of the chest: these, then, are the phenomena which demand explanation. The first sound which is heard after the interval of repose is that which accompanies the impulse, and this is supposed by Laennec, Hope, Rouanet,

and Carlile, to be caused by the ventricular systole. Dr. Hope, ascribing the generations of the sound immediately to the collision of the particles of fluid in the ventricles; M. Rouanet, to the closing of the mitral and tricuspid valves; and Mr. Carlile, to the rush of blood into the arteries, consequent upon the systole of the ventricle. But by Corrigan, Pigeaux, and Magendie, it is thought to occur during the diastole of the ventricle; the two former of these writers attributing it to the rush of blood into the ventricle, impelled by the auricle; and the last, to impulsion of the apex of the heart against the chest, by the ventricular diastole. The second sound is attributed by Laennec to the systole of the auricles, in which opinion he stands alone; by Hope, to the diastole of the ventricles; by Magendie, to the impulsion of the base of the heart against the walls of the chest, by the systole of the ventricles; and in this view he coincides with Corrigan as to the coincidence of the second sound and systole. Pigeaux ascribes the second sound to the collision of the blood against the walls of the aorta and pulmonary artery; and Carlile, to the reaction of the blood in the arteries on the semilunar valves, at the moment of the ventricular diastole; but Dr. David Williams thinks it is caused by the flapping open of the auriculo-ventricular valves against the side of the ventricle.

Such is a brief statement of the diversity of opinion respecting the indications afforded by the phenomena of the heart's action, which, we think, is sufficient to show that the question is still sub judice. It will be seen, however, that the greatest number of observers are in favour of the isochronism of the first sound and systole of the ventricles, although these writers differ in their methods of explaining in what way that sound is generated. The same may be said of the second sound, as occurring at the moment of the diastole of the ventricles. The arguments for and against these several theories will be found in a very useful note, at p. 511 et seq., taken by Dr. Forbes from Dr. Williams' work on Ascultation: we can recommend the perusal of it to the reader who desires to consider the subject fairly and philosophically.

The following note, by M. Meriadec Laennec, to be found at the conclusion of the chapter on Rupture of the Heart, contains an interesting account of a lesion which had escaped even the penetration of Laennec.

"Apoplexy of the heart, an affection which I am surprised has not been mentioned by Laennec, and of which several examples have been recently published by M. Cruveilhier, (Anat. Path. 3. Liv. Par. 1829,) appears to be, much more frequently than

inflammation, the cause of rupture of the heart. This lesion has hitherto been observed only in the walls of the left ventricle when in a state of hypertrophy. Here, as in the case of other muscles. the boundaries of the apoplectic deposit are formed partly by the muscular fibres ruptured and partly by their simple displacement. When quite recent, these deposits contain merely coagulated black blood; when they have existed some days, their walls are of a blackish red which penetrates to a greater or less depth, and we can distinguish some shreds of muscular fibres amid the blood; still later, the contained fluid assumes the colour of wine-lees, and appears as if formed of an admixture of blood and pus; and, at last, it becomes entirely purulent, and the walls of the abscess are lined by false membranes. M. Rousset, whose thesis I had occasion to notice in the chapter on Pulmonary Apoplexy, (Rech. Anat. sur les Hemorrhagies, Par. 1827,) has recorded a very fine case of muscular apoplexy, nearly universal, in which the heart was the site of three deposits, in the various stages just enumerated. These sanguineous or puro-sanguineous depositions in the walls of the heart, usually terminate in perforation either inwards into the cavity of the ventricle, or outwards into the pericardium. In the latter case their rupture is almost always immediately fatal. In the former case, the cavity becomes filled with the ventricular blood, and eventually the remaining exterior wall of the abscess being distended, gives rise, in all probability, according to the ingenious explanation of M. Cruveilhier (Dict. de Méd. Pract. t. iii. Art. Apoplexie) to those partial dilatations of the heart, described by M. Breschet under the name of false consecutive aneurisms of the heart, and of which two cases by M. Berard were noticed in Chap. VII. of the present book. M. Reynaud, however, in a notice of a particular kind of aneurism of the heart, (Journ. Hebd. de Méd. t. ii. p. 363.) has attempted to show that these excavations in the walls of the left ventricle are sometimes, in reality, the result of a partial dilatation, they having been observed to be lined (according to him) with a membrane continuous with that of the natural lining of the ventricle. But in the cases adduced in support of this opinion by M. Reynaud, it is observable that the lining membrane of the aneurismal sac was thickened around the orifice of communication between it and the cavity of the ventricle: a circumstance which alone suffices, in my judgment, to prove, that the membrane lining the aneurismal sac was not a continuation of that of the ventricles, but an old adventitious membrane analogous to those which line fistulæ in ano, and are continuous with the mucous membrane of the rectum. In this point of view, then, the case of M. Reynaud differs in no essential respect from those of MM. Cruveilhier and Rousset, being merely an example of the manner in which the apoplectic abscess of the heart became cica-All the cases of rupture of the heart hitherto published, appear to me to confirm the opinion that cardiac apoplexy is the

most common cause of them. It is proper to state, however, that M. Rachoux, who appears to have carefully examined the same facts, gives a preference to the explanation of the phenomenon by means of a softening of the heart; (Dict. de Méd. t. xvii. Art. Rupture;) and yet when we consider that in the opinion of this gentleman, every apoplexy is preceded by softening, we may, after all, consider his opinion as not being essentially different from that of M. Cruveilhier. Respecting the opinion of M. Cruveilhier, that apoplexy never affects the walls of the right ventricle, and that when rupture of them takes place, it depends on an atrophy, a fatty degeneration, or a gelatinous softening of the heart, I am not prepared to say how far it is well or ill founded. The recorded facts appear to justify it no farther than by this consideration, that the rupture of this ventricle being infinitely more rare than that of the left, it seems to indicate a different cause.—(M. L.)" (P. 581, note.)

The seat of rupture of the heart has thus been stated by Dr. Forbes, from an examination of fifty-seven cases, collected from various sources.

Left Vent. Right Vent. Both Vent. Right Aur. Left Aur. 32 13 3 7 7

On the subject of the abnormal sounds, whether existing in the heart or great vessels, the reader will find all the most modern opinions specified in the notes attached to the fifth chapter of the third part of the work, either from the pen of Meriadec Laennec, or of our English translator; and indeed we would say, that it is to this part of the work that the most interesting and valuable additions have been made.

Of this translation generally, and this edition in particular, we cannot but speak in terms of commendation: we know not that, had we ourselves undertaken the work, we should have dared to take such liberties with the original as Dr. Forbes has done, holding as sacred, as we do, all that comes from such a man as Laennec, and regarding him as the founder of the science of auscultation. He laid the foundation, and reared the edifice; and, although his short span of life did not permit him to see its full completion, yet such is the solidity of the substratum on which it rested, and such the excellence of the workmanship, that it may be safely said to bid defiance to the inroads of time.

The Nervous System, Anatomical and Physiological: in which the Functions of the various Parts of the Brain are for the first Time assigned; and to which is prefixed, some Account of the Author's earliest Discoveries, of which the more recent Doctrine of Bell, Magendie, &c. is shown to be at once a Playiarism, an Inversion, and a Blunder, associated with useless Experiments, which they have neither understood nor explained. Being the First Volume of an original System of Physiology, adapted to the advanced State of Anatomy. By Alexander Walker, Author of "Physiognomy founded on Physiology."—London, 1834. 8vo. pp. 704.

WE looked through Mr. Walker's book with considerable The physiological world has been of late years so much divided, that we hailed with pleasure the announcement of discoveries earlier than those which have formed the frequent subject of contest, and hoped that the existing feuds would be put an end to, by the appearance of a claimant of earlier date: but, although we have found in Mr. Walker's work the evidence of earlier publication than Bell, and Magendie, and Mayo, we are disappointed, on the other hand, to find that Mr. Walker's claims are not of that specific nature which will allow us to own that he has anticipated the physiologists in question. With a strong turn for metaphysico-physiological speculation, considerable originality, and often with a critical justness which we have admired, Mr. Walker seems rather to have speculated beyond his own time,—and certainly praiseworthily for his time, than to have actually anticipated what others have since accomplished.

We hardly, indeed, know how to recommend, how to condemn, how to praise this work; we cannot wholly condemn it, there is so much ingenious writing and clever anticipation in it; we cannot wholly praise and recommend it, for the errors incorporated in it are so many, that they would greatly mislead a student, who should attempt to learn from it the physiology of the nervous system. The work, however, is probably intended for masters, not for students; and the ability displayed in it undoubtedly makes it worthy of their

perusal.

Mr. Walker is a very clever man,—not for all time, but for a portion of a century: if his writings had become generally known when first produced, they would have won him laurels which would have lasted a life-time: produced at present, they are like a rich dress, not worn, of fifty years

ago, which suits not the present mode; for the fashion of a past theory, like the dress of the Chevalier Grammont, (if it could now reappear,) which was lost in a quicksand, is a

thing to be admired, not used.

It is clearly shewn, by Mr. Walker, that Galen and Willis (no mean name,) had conceived or adopted the idea that different nerves have different offices, which are determined by, or correspond with, the difference of their origins. Mr. Walker, following in this track, supposes the anterior branches of the spinal nerves to be sentient nerves; which, by the anterior fasciculi of the spinal marrow, connect themselves with the brain, which decompounds and reunites the impressions they received, and originates reflection, appetites, desires; that from the cerebrum the half-digested thoughts are transmitted by the upper peduncles of the cerebellum to that organ; that there being further concocted, they excite impulses, which go down the posterior parts of the spinal marrow to the posterior roots of the nerves, to issue the mandates of the will.

This is all very specious; but what are the facts, as now The discoveries of Magendie, Bell, and demonstrated? Mayo, show the reverse of Mr. Walker's theory to be true: they prove that the anterior roots of the spinal nerves, and their equivalents in the fifth, are for motion; the posterior for sensation. Mr. Walker says, that the authors we have named have taken his thoughts, and inverted them: this would be good Old-Bailey evidence, in the case of a coat or pair of trowsers, but surely not in an equity suit touching the property of ideas. takes the nether garment of Caius, and inverts it, we allow that it still remains the property of Caius; but, if B claims the reverse of what A vindicates as his own, we cannot concede that B is a plagiary. Our author, however, will have it, that the eminent physiologists with whom he is wroth have stolen their theories entirely from him, and have nothing of their own but their blunders; or, as the epigrammatist says,

> "Jack stole his discourse from the fam'd Dr. Brown, But, by reading it damnably, made it his own."

We will conclude our notice of Mr. Walker's book with the following extract, which will give an idea of the vein in which it is written, and of the author's controversial style.

"Inversion of the Writer's Discovery by Sir C. Bell, in 1821 or 1822.*

"Sir C. Bell afterwards abandoned this doctrine, and precisely inverted the doctrine of the present writer; making the anterior nerves those of volition, and the posterior those of sensation.

"It is remarkable, however, that, among other writers, returning more or less to the doctrine of the present writer, which has never varied, Bellingeri asserts that the roots which take their origin in the posterior columns do convey impressions that excite muscular contraction, and govern muscles of extension! while Schoepf asserts that the posterior columns and nerves, as well as the anterior, are subservient to voluntary motion!! and, finally, Magendie asserts that, when the anterior roots are irritated, appearances of sensibility are caused, and, when the posterior roots are irritated, muscular contractions are in some measure caused!!!

—The error which these statements involve shall afterwards be made evident: their approximation to those of the writer is the object of the present notice.

"The writer has already stated, that whatever merit belongs to his observations may be classed under one or other of the following heads: 1st, priority in the ascription of distinct functions to equally distinct parts; and, 2dly, the precise accuracy of that

ascription.

"Distance of Time even between the Writer's last Repetition of his Doctrine, and its Inversion by Sir C. Bell and others.

"Now, as to the first even of these heads, it is still more remarkable than all the author has yet stated, that, long before Sir C. Bell had followed the writer even in ascribing distinct functions—sensation and volition, to distinct columns and nerves, (he appears first to have done so in his Papers to the Royal Society in 1821 and 1822, or rather in the Exposition prefixed to them in 1824,) the present writer had repeated his previous doctrines in several Numbers of Dr. Thomson's 'Annals of Philosophy' for 1815, in consequence of a dispute on the subject with the late Dr. Leach, of the British Museum. Thus it was not till at least six years after this last repetition of the present writer's doctrine, that Sir C. Bell ventured to follow him, even in ascribing distinct functions, sensation and volition, to distinct columns and nerves!

"As to Magendie, his experiments were not published till July or August, 1822; and, as they were published only in the form of a very short notice, it is presumed that they had been but recently

^{• &}quot;On again glancing at Sir C. Bell's Papers to the Royal Society in 1821 and 1822, it appears that the writer should not give him credit for this inversion, till the publication of his 'Exposition,' prefixed to their republication, in 1824.—It may perhaps be said to have been indicated in the Papers of 1821 and 1822, so that it was not difficult for any one to make the additional step."

performed. In 1822 or 1823, Magendie thought he found that no pain was caused by irritating the surface of the spinal cord between the anterior roots of the nerves of each side, but that the muscles supplied by them were thrown into violent contraction; and, on the contrary, that acute pain was caused by irritating the posterior columns of the spine between the posterior roots of the nerves. He does not, however, then say whether or not, in the latter case, he found any contraction to be caused in the muscles supplied by these nerves; and he has since, at least, modified these views.

"As to Magendie, a few additional words are required. He would appear to have cleverly anticipated Sir C. Bell just before he had concluded, as he would speedily, that sensation and volition belonged to different columns. Even now he seems to contemplate further operations of the same kind: he tells us that he has been 'engaged at intervals in experiments on the use of the different parts of the brain, and will make known the results as soon as they appear worthy of public notice.' It was under a similar provision ('nous nous occupons depuis quelque temps d'expériences directes sur ce point,' &c.) that he thought he was snatching something good from Sir C. Bell, when he adroitly appropriated and improved his remarks on the spinal nerves, not knowing the precise history of these discoveries. But both M. Magendie and Sir C. Bell must learn that printed dates, where actual publication is proved by ample living evidence, will always constitute the sole test of priority. In this, as in other things, the French too often act en corsaire.

"Of Mr. Mayo the writer wishes to speak with respect. His conduct in discussion with Sir C. Bell, his elaborate work on Physiology, and his invaluable translation of Reil's papers on the Brain, are titles to the respect of every physiologist. Mr. Mayo mentions, in his Anatomical and Physiological Commentaries, that, being aware of the composition of the trigeminal nerve at its origin being the same as that of the spinal nerves, and having ascertained that its twigs, which pass through the ganglion of Gasserius, are destined for sensation only, while those which do not are intended for exciting muscular motion, he was led to conjecture that the posterior and anterior roots of the spinal nerves were similarly circumstanced; and he adds, that he was engaged in experiments to determine the fact, when the publication of Magendie's rendered his unnecessary.* (P. 70.)

^{. &}quot;Anat. and Physiol. Comment., No. ii., pp. 9 and 10."

DR. CLARK on Tubercular Phthisis: (from the Cyclopædia of Practical Medicine.)

By the gradual progress of the physical and mechanical sciences, and particularly by the more extended study of natural history, medical writers, during the present century, have observed facts and deduced inferences with more success than at any former period in the history of our art. Fine-spun theories, which ingeniously accounted for every thing, and too often elevated exceptions into rules, have been almost universally abandoned; and, instead of disputing about proximate causes, or the vital principle, the medical philosophers of the present age have directed all their attention to the facts presented to their observation, whether they refer to the causes and symptoms of diseases, or to the action of remedial agents.

The Treatise of Dr. Clark now before us affords an excellent illustration of the above remarks. Unlike most writers on this subject, who either content themselves with giving a long and tedious detail of the patient's sufferings, from their supposed origin in the first catarrh, to the last fatal diarrhæa, or pneumonia, which lays him in his grave; or who amuse their readers with various theories founded on a very limited experience; he exposes, in a short introductory section, his own more extended views of the disease, and then gives, in the second section, a clear exposition of the tuberculous constitution and tuberculous cachexia, containing a description of the constitutional signs by which a disposition to phthisis

pulmonalis is characterized.

The third section begins with an account of the more common or general forms of phthisis. The symptoms by which the actual existence of tubercles in the lungs may be detected in the very earliest stages, are here pointed out with great clearness.

The average duration of the disease is illustrated by two tables, in which the facts collected by Messrs. Bayle and Louis are so arranged, as to render evident the conclusions

to which they lead.

The various circumstances which modify the regular course of the disease are then treated at full length, under the heads of Acute Phthisis, Chronic Phthisis, Phthisis in Infancy and Childhood, Febrile Phthisis, and Latent Phthisis.

Much new and highly interesting matter will be found under each of these heads, and we fully agree with our author, "that such distinctions are not mere pretensions to refinement, but, on the contrary, are of great utility, both as regards the diagnosis and the treatment of the disease; for, as we shall find, each of these forms has something in its character, which it is important to mark, in order to distinguish the nature of the disease at an early period of its course." (P. 12.)

An attentive study of this section will save the practitioner the mortification of occasionally mistaking this fatal disease for a simple catarrh in some cases, and for dyspepsia or fever in others; thus depriving his patient of the only chance of safety, which a correct diagnosis might have afforded: indeed this section, together with section 4th, which is devoted to the consideration of particular symptoms, the physical signs and diagnosis, constitutes one of the most instructive parts of the whole work. Every portion bears marks of the deep study and patient observation of the author, and abounds with those useful and sententious remarks, and that copious detail, which distinguish the knowledge acquired at the bedside from that merely derived from books. mark particularly the accuracy with which the close relation of the symptoms and physical signs to the morbid changes throughout the course of the disease is expressed, and how correctly they are appreciated and separated from those of other diseases, in forming the diagnosis. In giving a clear and succinct description of the information to be derived by observing the respiratory movements, and by the employment of auscultation and percussion, the author concludes with the following paragraph.

"By adopting this plan of careful investigation on being first consulted, we do not hesitate to express our conviction that the greater number of cases of tuberculous phthisis would be discovered at a much earlier period of their course, -often, we are satisfied, many months, nay even occasionally years, before they now are, from the careless manner in which this class of patients are too commonly examined. Until we adopt a more minute and methodical system of inquiring into the history of the case, and, in addition to the usual symptoms of pulmonary disease, avail ourselves of the light afforded by auscultation in the most extended sense of that term, tubercular disease of the lungs can rarely be detected at such an early period of its progress as will give reason to hope that its further advancement may be prevented. In the present superficial mode of conducting our inquiry into the nature of such causes, the disease of the lungs has often made considerable progress, when the patient is said to be merely threatened with it; and tracheal or bronchial irritation are the terms employed to account for symptoms which a close investigation would trace to a deeper source. We must not be satisfied with a few rough and slovenly thumps on the upper part of the chest, or even with the use of the ear or stethoscope for a few seconds, applied as if he were afraid rather than desirous of ascertaining the real conditions of the lungs. Such superficial examinations, if they deserve the name, are worse than useless: with semblance of doing something, they really expect nothing, unless it be to deceive the patient and his friends, and bring this method of diagnosis into unmerited disrepute. Nature will not be interrogated in this rude manner: her operations must be observed with care, and studied with attention, before we can hope to interpret them with fidelity and precision." (P. 31.)

The fifth section, on the morbid anatomy of phthisis, presents nothing with which the labours of the French pathologists, and our indefatigable countrymen, Starke and Carswell, had not made us acquainted.

Section sixth contains an account of the principal compli-

cations of phthisis.

1st. Diseases of the organs of respiration, including ulceration of the epiglottis, larynx, and trachea, perforation and other affections of the pleura. 2d. Diseases of the abdominal viscera, including morbid conditions of the mucous membrane of the stomach, enlargement of that organ, ulceration of the intestines, fatty degeneration of the liver, &c. Much information, highly interesting to those especially who are unacquainted with the labours of Louis and other French

pathologists, will be found under these heads.

Section seventh comprises the statistical history of phthisis, arranged under "prevalence of tuberculous diseases at the different periods of life; influence of sex, of certain occupations, and of climate, in producing phthisis." All these questions are illustrated by tables which render our knowledge more complete and certain than that which could be derived from the experience, however extensive, of an individual. Very much, however, yet remains to be done on this subject, both as regards the collection and tabular arrangement of facts, and their subsequent reduction to general laws, before a full dependence can be placed on the accuracy of the conclusions drawn from them. When speaking of the influence of occupation, our author, in treating of the effects of irritating matters applied to the lungs, mentions the theories of Dr. Alison, and some other pathologists, who believe that inflammation, arising from such sources, is a frequent cause of tubercles, and gives it as his opinion that, although the symptoms attending the disease produced by the causes have a great affinity to those of phthisis, yet, in

the majority of cases, the appearances found on dissection differ materially from those of tuberculous disease, and that the inhalation of such substances can prove an exciting cause of tubercles only in persons of a tubercular constitution.

Section eighth, on Tuberculous Disease in Animals, contains an enumeration of the mammalia and birds in which it has been found. The author believes that no animal is exempt from the liability to it, when subjected to the exciting causes. He even adduces some observations by Mr. Newport respecting the presence of a substance resembling tuberculous matter in certain insects.

The three sections which follow, on the causes, nature, and prevention of the scrofulous diathesis, involve questions of the highest importance, not only to the medical practitioner,

but also to the public at large.

It is much to be lamented that the peculiar conformation of mind which enables those possessing it both to observe at once particular facts with attention, and to form general laws by the use of their reason, should so rarely exist. The circumstance that men are generally either matter-offact people or theorists has tended more than aught else to retard the progress of science. One man gathers his facts with the greatest possible industry, never thinking of their combinations or arrangement, till his mind resembles the museum of the slovenly virtuoso, where specimens of all that exists in the three kingdoms of nature are jumbled together: another engrossed in contemplating the varied forms and combinations, which his ill-regulated and over-excited imagination gives to a number of facts imperfectly observed, mistakes the vagaries of his fancy for the truth of nature, and instinctively, and almost unconsciously, shuts his eyes to the study of facts which might serve to throw doubts over what he has made so clear.

In the instance before us, it must be allowed that the generalizations of the medical philosopher are even more useful than the minute researches of the most accurate pathologist; for a perfect knowledge of the condition of the lungs, and the symptoms which arise in the course of the disease, are both subjects of very secondary importance, when compared with the study of those causes which produce the scrofulous diathesis, and of the means by which it may be removed, or the deposition of its products prevented. We may be able to detect the smallest vomica,—we may have examined hundreds of tuberculous subjects,—and we may employ all the balsams, astringents, and fumigations,

recommended for ulcer of the lungs by the ancients, with all of iodine and chlorine inhalations that have been added to the vast farrago of phthisical remedies by the moderns; we may diet our poor patient, or feed him on beef-steaks and porter; still the grand result will remain the same: society will have to lament the loss of almost an equal number of her members. We ought not, of course, to be ignorant of the subjects just mentioned: on the contrary, it is only by our perfect acquaintance with them that we can hope to gain the confidence of our patients, and the respect of our professional brethren. The enlightened medical practitioner, however, feels that his duty is but half done when he can only detect organic disease, and mitigate symptoms: the grand object of his ambition ought to be the prevention of disease, the diminution of the general mortality, and the extension of the mean duration of human life. In relation to these questions, the immense importance of increased attention to this disease has never till now been brought before the public, with the force it deserves. Organic diseases, depending on a modification of the whole economy, are, with a few exceptions, developed slowly; and are almost constantly produced by the action of external causes, which may be detected by a little attention, and then very generally avoided or removed. Whoever considers this with due attention, will not attempt to deny that tubercular disease, which now carries off, in one form or other, more than one sixth of the inhabitants of Europe, before they reach the prime of life, might become comparatively a rare disease.

But, before we can hope to see this most desirable end accomplished, many changes must take place in the very commonest usages of our lives; for the disease is so extended, and the causes which produce it so various, and so interwoven with our customs and habits of life, that no great diminution can be effected till the science of hygiene is more sedulously cultivated, and its principles more widely diffused; in fact, not till the attention of the public has been fully awakened and directed to these points for a great number of years. The man who could convince the world of the possibility of preventing the development of tuberculous disease, by efforts which should begin before the formation of the fœtus, follow the infant through childhood and youth, as our author has done, and, for the sake of posterity, relax not till the last hour of existence, would render a greater service to mankind than even the immortal Jenner. But it is to be feared we shall long hope in vain: the bad effects of neglect in this instance follow the causes at too great an interval, and the physician will therefore find as much reason as the moralist, to lament the innate propensity of man to prefer present ease and pleasure to future health and happiness. With all the highly-boasted diffusion of knowledge in the present day, it is surprising to find the means of preserving health so entirely neglected. We are much afraid that a great portion of the reproach must be laid on the medical profession: had its members instructed the public as they ought, the care for posterity would have extended beyond the vain ambition of transmitting to it wealth and honours, which, without health, are but a gorgeous mockery. We hope that a new era is approaching, and that these subjects will be studied as they deserve.

Our author begins his account of the causes of tuberculous disease by considering the influence of hereditary transmission, and takes great pains to show that a disposition to tubercles may be communicated to the offspring, not only when the parents actually labour under the disease, but also that various other morbid states of the parent may have this effect upon the offspring. Of these, disease of the digestive organs is the most powerful.

"Of all diseases, we consider dyspepsia the most fertile source of cachexia of every form; for this plain reason, that a healthy condition of the digestive organs, and a proper performance of their functions, are essential to the due preparation of the food, and consequently to the supply of healthy nourishment to the body. The adjusting powers of the system may do much to correct a disordered condition of the different functions concerned in the process of assimilation, by means of the increased activity of the healthy organs; but the system cannot long continue in a healthy state when any one important function connected with nutrition is materially deranged. Without, however, entering into this most interesting subject, we consider it an established fact, (it is so at least to us,) that dyspepsia, and any other disease which induces a cachectic state of the parent, shows itself either in the tuberculous constitution of the children, or in their strong tendency to become the subjects of those disorders which generate such a constitution,—such as that form of dyspepsia which has been denominated strumous by Dr. Todd."* (P. 53.)

Of all the forms of hereditary transmission, the author considers as the most common, though the least generally understood, that where the child is merely predisposed to

^{*} See Cyclopædia of Practical Medicine, article Indigestion, for a masterly account of dyspepsia under its various forms.

functional derangement, capable of generating the tuberculous constitution.

The injurious effects of deficient exercise, excessive labour, improper clothing, want of cleanliness, abuse of spirituous liquors, mental causes, and, lastly, the question of contagion, are treated in succession. The author concludes this subject with the following summary.

"Reviewing what has been said respecting the causes of tubercular cachexia, they may be stated generally to comprehend all
those circumstances which debilitate and increase the irritability
of the system, impede the due digestion and assimilation of the
food, diminish the various secretions and excretions, and induce
internal sanguineous congestion. Defective assimilation, from
whatever cause it proceeds,—whichever be the first link in the
chain of morbid processes,—induces, according to our view, tuberculous cachexia; and whether the primary error exist in the inadequate supply of food, or in the incapacity of the organs to extract
from this the elements of nutrition, to assimilate and apply them to
the reparation, growth, and various purposes of the animal economy, the ultimate result will be the same." (P. 56.)

The causes which determine tuberculous disease in the lungs are next described. They are divided into two classes: 1st, those which act immediately on the organs, as bronchitis, pneumonia, hæmoptysis, and some other pulmonary affections. Bronchitis and pneumonia have some effect as exciting causes, only when the constitutional diathesis preexists. The second class of causes act partly on the lungs, and partly on the general system: such are fevers, and more particularly those of the eruptive kind, as rubeola, scarlatina, and variola.

In the tenth section we have an excellent description of the pathology of phthisis, and of tuberculous diseases in general, in which the author gives a minute account of his opinions respecting the constitutional nature of the disease.

"In whatever point of view we may regard tuberculous cachexia, we shall find its phenomena explicable only by admitting that it depends on a general modification of the whole and every part of the animal economy; and that all notions which regard it as the morbid degeneration of any organ or tissue, or of any particular system, or the morbid modification of any single fluid, are necessarily erroneous, and founded on limited views of its nature and laws, and totally inadequate to explain its phenomena." (P. 60.)

Our author remarks, that the remote causes of phthisis, however variously they may operate, do so by inducing some positive pathological conditions, which, being constantly present wherever tuberculous disease is formed, may be regarded as necessary to its production; that, in the actual

state of physiology and pathology, all these conditions cannot with certainty be defined; still that it would not be difficult to point out some of the more important links of the chain which connects special functional disorder with the formation of tuberculous cachexia; and he refers to a "congestive state of the venous system of the abdomen," as constituting one of the most obvious and important of these

pathological conditions in a practical point of view.

His views are the result of practical observation, that a disposition to this congestive state of the abdominal circulation constantly exists in strumous children; that it is, besides, a precursor of tubercular cachexia; and that it presents itself more under the form of dyspepsia, and its concomitants, in the middle period of life, often obscuring the pulmonary affection: tubercular phthisis rarely occurring at this age without this complication. Our author refers to the authority of many German physicians of the last century, to the opinions of Kæmpf and his disciples, and to the observation of Portal, on this subject, with whose labours he was not acquainted till he had himself, from his own experience, arrived at the same conclusions.

"Abdominal plethora," our author says, "when once established, gives rise to a series of deranged functions in the digestive organs, the lungs, and the skin, which, by impeding digestion and assimilation, affect the whole animal economy. These are manifested in imperfect biliary secretion, constipated bowels, and irritated mucous surfaces, in congestion of the lungs, and a dry and harsh state of the skin.

"In consequence of the overloaded condition of the venous system, the heart, generally feeble in the tuberculous constitution, is oppressed, and the arterial circulation impeded and enfeebled. In this state of the system, very slight exciting causes induce disease, especially inflammation and hemorrhage: hence arises the constant liability of strumous subjects to inflammatory diseases of a subacute or chronic character; and hence also we derive an explanation of the hemorrhage to which they are peculiarly liable, even at a very early stage. The same pathological state of the abdominal circulation forms the remote cause of the various congestive and chronic diseases, so common in the strumous subject; such as glandular swellings, cutaneous eruptions, &c."

Section eleventh contains a very comprehensive view of the precautions to be adopted in attempting to prevent the oc-

currence of tuberculous diseases: lst, as regards the parents;

2d, as regards the offspring.

Under the first head, the question relating to marriage and the health of the parents is noticed, and the rules to be observed by delicate females during pregnancy are laid down with much judgment. But it is under the second head, in which the prevention of the disease in infancy, childhood, and youth, is treated of separately, that the author displays, in its fullest extent, that power of observation, and that practical application of facts, by which his writings are characterized.

We recommend strongly the study of the hygienic remarks in this section to our professional brethren: indeed, we think that every parent ought to be acquainted with the excellent rules laid down on nursing, dress, bathing, air, exercise, and education.

As the tubercular cachexia and phthisis so often occur about the period of puberty, the author under this head gives an account of the remedies for the cure of this morbid state of the constitution, and for the prevention of phthisis. "The utility, however, of these remedies is not confined to this period of life: they may be employed at any age, almost from infancy, when the circumstances of the patient indicate their use; and some of them, although ranked among preventives, are often applicable in the early stages of phthisis." He divides them into alteratives, purgatives, tonics, bath-

ing, &c.

Of the first class, mercury will be found a very valuable remedy, when the secreting functions of the liver are disordered; but if, on the other hand, it be carried beyond its alterative effects on the hepatic system, it seldom fails to prove injurious. Taraxacum is considered "a very valuable remedy, from its power of diminishing abdominal plethora, and its special influence on the urinary and biliary secretions." The opinions of several distinguished German writers are quoted in its favour, and good practical hints are given as to the best mode and time of administering it. He has found sulphureous waters a valuable remedy, when the strumous constitution is complicated with cutaneous affections, especially "when the skin is coarse and dry, and the whole constitution of a torpid character; but, in the more delicate class of strumous patients, with a thin skin, the use of sulphureous waters requires much caution."

Mineral waters, the author is of opinion, are superior to all other alterative remedies. "The operation of these in-

valuable remedies may be so directed as to promote all the secretions and excretions, to influence the functions of almost every organ, and improve the condition of the circulating fluids."

The cautions to be observed in the administration of purgatives, and the circumstances under which the other means included in this section may prove useful, are pointed out with

great minuteness.

Of the general remedies, venesection is first considered, and the peculiar practice of small and frequent bleedings, adopted by Dover and others, is discussed. The author believes that general bleeding would seldom require to be repeated, if proper attention be paid to the regimen, and to the diminution of the abdominal plethora; and that local bleeding, by cupping on the chest, is the most effectual way of relieving the inflammatory action accompanying tubercles, after one or more general bleedings have diminished the congestion.

Our author insists strongly on the efficacy of emetics, and numerous authorities are quoted in their support. He thinks their action may be accounted for, on rational principles, by the new views of Dr. Carswell* respecting the seat of tubercle, and earnestly recommends their use, as holding out "the rational hope of being made one of the most efficient means of preventing the localization of tuberculous disease in the lungs in many cases, and perhaps removing it in some

others."

The advantages to be derived from the use of digitalis and iodine are discussed; after which follow some excellent observations on the climate most suited to the various forms and stages of the disease. The valuable labours of our author on this subject are already too well known, and too highly appreciated, to require any mention in this place.

The employment of local remedies, consisting of local bleeding, counter-irritants, inhalation of tar-vapour, iodine, and chlorine, is then considered. After remarking the partial nature of these agents, the author concludes the subject of local remedies with the following observations, in the truth

of which we perfectly acquiesce.

"When more rational and just views of the pathology of phthisis are generally entertained by the profession, we shall cease to hear it asserted that this disease is to be cured by local applications. We do not, however, condemn such measures as useless:

[•] Illustrations of Elementary Forms of Disease. Fasc. 1, and art. Tubercle. (Cyclopædia of Practical Medicine.)

on the contrary, we consider them valuable as palliatives, and of great service as adjuncts to those remedies which are directed to amend the condition of the general health, and to correct the tuberculous diathesis; but we certainly disapprove of any local remedy being relied on as the principal means of curing a disease which depends upon a morbid state of the constitution: such an error is founded on imperfect views of the real nature of tubercular phthisis, is productive of much mischief in practice, and cannot be too strongly reprobated." (P. 84.)

Some admirable practical observations then follow, on the treatment of particular symptoms; and the author concludes with the treatment of the advanced stages of the disease.

The very important nature of these remarks, and the close style in which they are written, preclude the possibility of condensation, though we are sorry to leave the author with this imperfect notice of his excellent work. We hope that a knowledge of its contents will not be confined to the purchasers, however numerous, of the valuable book in which it forms one of the best articles; for we have seldom seen a medical work more deserving of general circulation, or one that we would more zealously recommend to the younger members of the profession, whether we regard its clear and simple language, (a point much neglected by professional writers,) or the paramount importance of the subject, and the enlightened views of the author.

An Exposition of the Nature, Treatment, and Prevention of Continued Fever. By Henry M'Cormac, M.D.—London, 1835. 8vo. pp. 202.

If it be a humiliating consideration that the medical doctrines most influential in one age melt away before the increasing information of that which succeeds it, we may console ourselves with the reflection that every hypothesis engages its defenders in the accumulation of facts, which remain when the mist of false reasoning through which they were viewed has dispersed: the foundations of reasoning are thus confirmed and enlarged, while the experience of past error favours in some degree the progress of truth, by warning us from devious paths. Hence there are many subjects which we are much better qualified to investigate than our forefathers, though we may not as yet have arrived at much more accurate knowledge. These truths are illustrated by the progress of opinion on the subject of fever. Medical philosophers of all ages have been much occupied with endeavours to discover in what the essence of this disease consists;

and it must be confessed that no more of the matter is positively known now than at the commencement of the inquiry: many important facts, however, have been brought to light; the effects of the still latent cause have been successfully elucidated, the most frequent sources of danger detected, and the disease thereby brought much more under the control of art.

For a long time the theory of fever was obscured by the substitution of chimeras for facts; at a more advanced period of the inquiry, hypotheses, not in themselves improbable, were made beds of Procrustes, on which unaccommodating facts were stretched or curtailed into conformity: in the present day, when facts are more accurately observed, and more diligently recorded, the propensity to undue generalization too frequently converts the means of knowledge into sources of error.

The opinions of Stahl and Hoffman, as modified and expanded by Cullen, may be considered as the first plausible explanation of the phenomena of fever. It is true that Cullen embarrassed his reasoning by his favourite hypothesis of spasm, which frequently made him lose sight of facts, or misconstrue them: notwithstanding, however, the senseless vituperation that has been bestowed upon this great physician by certain writers, who, when compared with him, "seem scarce so gross as beetles," it will appear, on candid consideration, that his views, on the whole, are infinitely less repugnant to facts than any of the exclusive hypotheses lately so much in vogue. Let it not be forgotten that Cullen makes the essence of fever to consist in the operation of some cause exerting a sedative influence on the nervous centres; a doctrine which, to this hour, has gained strength by the accumulation of facts, and which, though we have no absolute proof of its truth, bids fair to be ultimately established by the method of exclusion,—by the entire insufficiency or manifest falsehood of all other suppositions.

If asked to assign our reasons for believing fever to arise primarily from a sedative impression on the nervous system,

we should give the following as the principal:

1. The universality of symptoms indicative of nervous depression, and the variability of all other symptoms. We see fevers with and without local inflammation; we see occasionally every variety in the state of the vascular system, and the functions immediately dependent upon it: but we never yet saw or heard of a case of regular continued fever, which was unattended at its commencement, and throughout its

course, with manifest indications of diminished nervous

power.

2. The general derangement of all the animal and vital functions, arguing an affection of that system whose influence is most universal over all the functions of life, namely, the

nervous system.

3. The affinity between the first, that is, the essential stage of fever and those states of the system which are almost universally ascribed to a sudden depression of the nervous power; as in the instance of overwhelming affections of the mind. In the pallid aspect, cold surface, feeble pulse, oppressed respiration, and staggering gait of one whose mind has received a great and sudden shock, who can fail to recognize phenomena strikingly similar, nay almost identical, with those produced by the sudden invasion of fever?

The influence of those recent doctrines which refer all the phenomena of fever to some local inflammation, seems to be already on the wane. It is fortunate for the cause of truth that these exclusive hypotheses have all asserted their claim to attention nearly at the same time, and thereby tended to

neutralize each other.

Dr. A. has spent half his life in dissecting people who died of fever: their brains were all inflamed: fever is phrenitis. Dr. B. has been equally indefatigable: there was nothing the matter with the patients' brains: they died of inflammation: fever is enteritis. Dr. C. has inspected the brains and intestines of the defunct with microscopic accuracy, and finds not in these the cause of death; but, lo! the lining membrane of the arteries was as red as scarlet: fever is arteritis.

Now, as our reason tells us that all these conflicting statements cannot be true, so the unprejudiced use of our eyes will convince us that no one of them is true. Whoever has been in the habit of dissecting the bodies of those who have died of fever, without having his mind preoccupied by an hypothesis, must be perfectly satisfied that, although some organ or organs are frequently, nay generally, found to have been inflamed, that no one of them is uniformly so; and that fatal cases of fever sometimes occur, in which morbid anatomy cannot detect any local appearance of the smallest importance.

Of all the inflammatory hypotheses, we believe that which makes the gastro-enteric mucous membrane the seat of fever to be by far the least objectionable, in a practical point of view; because, although inflammation be not the cause of fever, it is a very frequent complication: much more frequent, according to our own experience, than any other local affection.

An ingenious writer, Dr. Mackintosh, has observed that certain causes, which are partial in their operation, may have tended to mislead pathologists in the investigation of fever: thus, if Dr. Clutterbuck has found nothing but inflamed brains, "it must be kept in view that he practises in the greatest commercial city in the universe, among a people whose minds are, generally speaking, more actively employed than their bodies,—who are exposed to intense anxieties occasioned by extensive speculations and reverses of fortune,—who are either in a state of considerable mental excitement or depression. If to these considerations we add the effects of heavy meals and sedentary habits, impeding the functions of the stomach and bowels, it will be seen that there may be considerable foundation for the opinions this gentleman has been led to advance."

Again, with reference to the doctrine of Broussais, he observes, "In France it is no wonder that Broussais should so frequently find the mucous membrane of the stomach and intestines altered, both in appearance and structure, if the habits and modes of living of the people are recollected. The stewed meats, salads, oils, and sweets, consumed by Frenchmen among the higher ranks, together with the hard beer and acid wines which they drink, and the unwholesome food eaten by the lower ranks, all tend to produce irritation in the digestive organs. Sooner or later these irritating matters produce increased vascularity, which must frequently terminate in inflammation and ulceration." (Practice of Physic, vol. i., p. 32.)

These are philosophical remarks, and highly worthy of attention.

If it be erroneous to connect with the essence of fever any of those forms of inflammation, some one of which there is much reason to believe has always accompanied a large proportion of cases of this disease, it is still more erroneous to assign an undue importance to those more partial organic lesions which are observed to accompany particular epidemics, or, at most, to distinguish the fevers of one age or country from those of another. The most prevalent delusion of this kind (for such, we fear, it must be called,) in the present day, is that which connects fever necessarily with disease of Peyer's and Brunner's glands.

We by no means intend to question the accuracy of observation of several distinguished physicians who have noticed the appearance alluded to; but the silence on this point of a host of inquirers, equally diligent, and no less worthy of confidence, affords much reason to doubt the alleged uniformity of its occurrence. How is it that Broussais, and his numerous followers, whose peculiar opinions have led them to so frequent and scrutinizing an examination of the gastroenteric mucous membrane, in cases of fever, can have been blind to so constant and obvious a phenomenon?

Is it not hence probable that this, like many other complications of fever, forms no essential part of the disease, but is confined to particular epidemics, periods, and localities?

This view of the subject is countenanced by a retrospect

of the history of fever.

We find the most accurate writers of past centuries describing, as characteristic of fevers which fell under their observation, symptoms which are no longer to be found in those of our own time. Where, for instance, is now the putrid fever of this country, so graphically delineated by Huxham, in which the worst symptoms of scurvy seem to have been superadded to those of fever, and to have produced that dissolved and putrescent state of the fluids from which the fever derives its name, and in which it was then thought mainly to consist? No such cases now present themselves, though we occasionally observe a slight approximation to them; yet nobody doubts that the putrid fever of Huxham was essentially the same malady as the typhus of the present day.

Let those who would inquire philosophically into the pathology of fever rest assured that the subject can only be successfully elucidated by a comparison of many series of careful observations, made by different individuals, in diffe-

rent countries, and at distant intervals of time.

We have been waiting for an opportunity of introducing our author, Dr. M'Cormac; and, if we have been tardy in so doing, it is because his work, though on the whole an excellent one, labours under a defect of arrangement, which renders it difficult to know where to commence a notice of it. The whole book is one chapter; a peculiarity not to be commended in a treatise, the complexity of whose subject renders subdivision essential to perspicuity. The following is a judicious summary of the morbid anatomy of typhus fever,—that is, of continued fever in general; for our author is not disposed to admit the validity of nosological distinctions in this disease; wherein we entirely agree with him.

"After death, the brain is sometimes found slightly injected, and occasionally pale; in other cases, it may be unusually hard

or soft; but frequently nothing peculiar is to be observed. The veins and sinuses are occasionally congested with blood. membranes are sometimes slightly injected, and there is in many cases a greater or less effusion of serum; but this is a common circumstance after death, as all who are engaged in anatomical investigations are aware. In rare cases, a little pus or sero-purulent fluid is discovered; sometimes there is a gelatinous effusion, and at others partial adhesions of the membranes. So much, concisely speaking, for the changes presented after death by the brain. Of the spinal marrow, nothing particular is on record. As for the fluid seen flowing out, it is a matter of almost universal occurrence after death, being, in fact, a normal condition. The details respecting the apparatus of the sympathetic nerves are still less satisfactory. Andral has seen the semilunar ganglions red, but does not venture to assert that it was a mark of disease; and I fully agree with this writer, when he affirms that the state of the nervous centres after death does not, in the great majority of cases, account for their functional derangement during life. We have been stuffed to satiety with the specious details (in too many cases really anything but satisfactory,) of morbid anatomy; and it is refreshing when such a first-rate pathologist assigns them their just value. In truth, the appearances after death in the brain will not, as has often been asserted, explain the phenomena of disease, any more than they will those of life. The language of morbid anatomy is not too definite; and why relate too minutely the details of phenomena, which, however important, must be witnessed, to be known and appreciated? The morbid varieties observed in the respiratory organs, though highly important, are not very numerous: they are, however, frequently observed, and constitute, along with other alterations, a frequent cause of death. They consist of the ordinary results of inflammation and congestion. The bronchial lining is more or less red, accompanied with a considerable effusion of mucus. Armstrong affirms that typhus is always attended with a special bronchitis; indeed, he insists so much on it, that we might almost conclude that he looks upon it as the leading cause of typhus fever: other pathologists certainly do not support him in the lengths to which he has gone in this respect. lungs are frequently as if gorged with blood or serum; and hepatization, the result of pneumonia, is not an uncommon result. have often seen it, more or less extensive, in the lungs of those who died of fever. Andral speaks of a lesion, frequently to be met with, in which the pulmonary parenchyma is injected with blood, as in hepatization, but more like softened spleen. cavity, as it is called, of the pleura, in some fatal cases, contains a reddish effusion: it does not appear that this is any consequence of inflammation; the pleura, besides, seldom exhibits any evidence of it. The pericardium occasionally presents a serous effusion of a ruddy aspect; and the same may be remarked of the peritoneum. The liver is not often organically affected in fever;

No. VII.

and, when it is so, we may perhaps conclude that it is seldom connected with the disease. As to the bile, it is sometimes altered as to quality and quantity; but we can hardly connect any of the phenomena of the disease with its appearances, or those of the liver; a few rare cases excepted. The urinary apparatus seldom presents organic lesion. The spleen is not rarely soft and voluminous; more frequently, Andral remarks, than in any other disease; and Louis also is of opinion that this viscus is more frequently affected than any other in fever. The heart seldom presents any lesion: sometimes, however, its internal parietes, and those of the large vessels, are redder than usual; but no peculiar conclusion can be drawn from these circumstances. Little need be said in this place respecting the blood; its alterations have been already spoken of. The extreme liquidity and other changes sometimes presented

by this vital fluid are not peculiar to fever.

"The alterations which occur in the intestinal canal have received a large share of attention during late years, particularly from the strenuous attempts which have been made to localize the seat of fever in this viscus; and which attempts are consequently based upon the affirmation of the universal presence of local affection. It is quite certain, however, as appears from the avowal of the best pathologists, that very many cases of the disease above mentioned occur without the slightest perceivable organic alteration, adequate to account for them. If such a circumstance prove that fever is not owing to a gastro-enteritis, it also shows as strongly, in my opinion, that a follicular exanthem, so styled, is not the cause either. It has been said, however, that, as erysipelas is sometimes found to leave little or no trace on the skin after death, so may the organic evidence of inflammation of the mucous membrane also disappear in like circumstances. I do not think that great attention is to be attached to this explanation, though it should not be overlooked: great consideration, nevertheless, is due to those who pointed out the frequent and too-generally neglected lesions of the intestinal canal, such as they occur in fever. great object is to obtain as large a list of the functional and organic phenomena as possible; but to assign the source, and to demonstrate the order of causation in the disease, is, I fear, as yet beyond our grasp; if it may ever prove otherwise. The transient appearances produced after death by the passage of blood or bile, or the traces of the incipient dissolution of the frame, are hardly worthy of notice, except to avoid confounding them with the changes occurring in life. The mucous membrane is occasionally here and there more or less injected; it sometimes also undergoes the change which is called ramollisement, or softening. whole, the organic changes of the stomach are not considerable in fever. The small intestines, especially towards the end of the ileum, as I have said before, present frequent traces of disease. Of these, the most remarkable is that peculiar affection, or exanthem, as it is styled, of the follicles, which has received the name

of dothinenteritis. The agminated and the isolated crypts or follicles, or those of Peyer and Brunner, as they are sometimes called, may both prove the subjects of this phenomenon: the first, however, are more frequently affected than the latter. When they have undergone this morbid change, they rise above the surface of the surrounding mucous membrane, than which they are sometimes softer, and sometimes harder; the mucous membrane itself may or may not be otherwise affected. Occasionally they occur in the cæcum in plates, as in the ileum, but isolated in the rest of the large intestines. Sometimes the diseased follicles may be traced individually in the plates; at others, they are indistinguishable from each other. They may proceed to resolution, or they may form eschars, which, falling off, display ulcers, varying in extent, from the size of a single follicle to that of a whole plate: in the former case they are often exactly round. These ulcers sometimes destroy the mucous membrane, to the extent of many inches, not only in the ileum, but in the cæcum; at other times they are few and small. The ulcers may cicatrize if the patient survive: in a few cases, however, they lead to perforations, which, permitting the effusion of the contents of the intestines into the cavity of the peritoneum, cause inflammation and death. This result does not occur except in advanced stages of the The exanthem, if we may call it so, does not present the regular phases seen in small-pox: it may exist during the greater portion of the disease, and even after the fever has ter-After what I have said, I need hardly repeat again minated. that, together with its results, it is only an occasional contingency in fever, and seemingly more frequent on the continent than in this country; from what cause, however, if it be thus, I do not pretend to say. They are rarely seen in old men: these, however, when seized with fever, present the same general symptoms with young persons in whom this phenomenon occurs. Independent, however, of the unquestionable fact that this exanthem, as some call it, is far from invariable in fever, those who most warmly contend for its being the cause of the disease admit that it has been detected in phthisis and scarlatina. The mesenteric glands always undergo a morbid alteration, corresponding to the severity of the exanthem. They enlarge in size, grow soft and discoloured. and sometimes contain pus. As to the contents of the intestinal tube, a collection of gas, occasionally amounting to meteorism, is sometimes seen in bad fevers; worms are a matter of common observation, also vitiated bile and blood." (P. 83.)

Admitting the general prevalence of inflammatory action in some organ or other, though not uniformly in any one, the cause of such inflammatory action becomes an interesting object of inquiry. It may be offered in explanation, that the functions of the whole vascular system being deranged, those organs suffer most which are most predisposed to disease;

but it is to be objected to this hypothesis, first, that local inflammation is frequently found to accompany fever, where the general affection of the vascular system is not of a kind at all likely to induce this morbid state; where the actions of the arterial system are enfeebled and diminished. Secondly, that it is not warrantable to assume that any organ was predisposed to disease, in cases where the patient was apparently in perfect health immediately previous to the accession of

fever, which is very often the fact.

In attempting an hypothetical solution of what is confessedly beyond our knowledge, we should not lose sight of the valuable and original observation of Dr. Wilson Philip,* that the division of the nerves of a vital organ immediately deranges the action of its vessels: of course, defective innervation, from whatever cause, may be expected to produce some degree of the same effect. Now, if the essence of fever be supposed to consist in the action of a depressing cause on the nervous centres, it may easily be conceived that such cause operates more energetically on one portion of the nervous mass than another, and hence that vascular derangement will be most conspicuous in parts whose nerves are derived from those portions of the nervous mass which are more immediately under the influence of the depressing cause. In accordance with this view of the subject, Dr. M'Cormac makes the following remarks.

"So far as the process of innervation is concerned in the various functions of the animal economy, in so far will these functions become liable to derangement, when the seat of innervation itself—the brain, spinal marrow, and their dependencies, is subjected to functional or organic disease. But, as we do not know how far these are connected in health, it is at present, à fortiori, impossible to pronounce with precision upon their relations in disease. It is a truly remarkable circumstance that, in fever, inflammation will supervene in various viscera, at a period when no one would suppose that sufficient activity of the circulation did not exist for the purpose. It is more than probable that, independent of the functional lesions liable to be occasioned by the advent of vitiated blood in the brain, a proneness to various organic alterations will thereby be produced." (P. 73.)

Another point of some interest is the nature or kind of the inflammatory action which occurs in fever. Is it common inflammation, or is it specific? One might almost be led to conclude that there was something specific in its character, from the greater tendency to spontaneous resolution which it exhibits than ordinary inflammation occurring in the same

Philosophical Transactions for 1827.

textures: thus we frequently observe, in the progress of continued fever, a very acute degree of inflammation lighted up in an important organ,—in the brain, for instance; we find that such inflammation continues, in spite of our attempts to remove it, for a length of time, during which ordinary inflammation could hardly be expected to exist, without fatal lesion of the part; yet, the fever having run its course, convalescence ensues, and the patient escapes without any permanent injury of the organ. Our author reasons on the subject thus.

"It is said, and with much justice, that the inflammations in fever are of a different character from those which take place idiopathically, or without fever in the first instance. Certainly they will not always bear the same activity of treatment. we entitled to affirm that the inflammation which superinduces fever, perhaps eventually of a typhoid cast, is always different from the inflammation which often occurs in fever? I should think not. Many are of opinion that the alteration which takes place in the blood causes the inflammations which occur while it is in this state to assume a different character: certainly in so far there will be a difference; but is it ascertained that there is any other? Different German and English pathologists think that the blood, in consequence of not undergoing the usual changes, acquires a narcotic character; but, although I would agree with them as to the facts which this term is intended to indicate, I should prefer simply recounting them, without using it, as I consider that to assume unnecessarily the existence of an uncertainty is rather calculated to lead us into error. Assuredly the alterations which the blood undergoes, as also its decrease, (a fact which seems to be occasionally overlooked,) must occasion marked changes in the processes of innervation, if not a partial suspension of them. The excessive diminution of the mass of the blood, from wounds, venesection, and flooding, is known to cause convulsions, loss of vision, hearing, and other nervous phenomena: now, in the latter stages of fever, there is not only a great change in the constitution, but also, as I have just observed, a notable diminution in the quantity of the blood. The universal prostration, lühmung, as the Germans expressively term it, which occurs in that form of fever called typhus, must undoubtedly be mainly occasioned by the excessive vitiation of the vital fluid.

"It is wonderful how late pneumonia will occasionally ensue in fever: I have seen it take place on the twentieth day, and prove nearly fatal. It is unaccountable how such a process can be set up in such opposite conditions of the animal economy—robust health, the one extreme, and a state of the lowest and most miserable depression, the other. Andral, and many other observers, as well, have seen fatal pneumonia ensue during convalescence." (P. 75.)

The treatment of fever is very fully and judiciously discussed by our author. The subject is too extensive to be entered into in a review, and too familiar to admit of much new illustration. While the pathology of this disease has strikingly exemplified the fallacy of medical reasoning, the records of practice show with how much caution the testimony even of able and candid men is to be received with reference to facts supposed to be indisputable, and of general applicability. Cold affusion, if we are to believe Dr. Currie, seldom fails to cut short fever, if early applied. What is the result of more mature experience?—that its inefficacy has nearly banished the use of it from practice.

The same virtue has been attributed, on high authority, to bleeding; yet, if there be a fact in the treatment of fever now generally agreed on among practitioners, it is that the disease cannot, under ordinary circumstances, be cut short

by any means whatsoever.

The treatment of fever, in the hands of a practitioner who is content with facts, and not addicted to any particular hypothesis, is sufficiently obvious. The division of fevers introduced by Dr. Armstrong, into simple, inflammatory, and congestive, is of little value in pathology, because every fever is, at its commencement, congestive, however short a time it may remain so; and every fever may in its course be-This distinction, however, is of great come inflammatory. utility in a practical point of view. When the morbid cause is so concentrated, or the powers of the system so inadequate to contend against it, that arterial reaction is not effectually established, the fever is called congestive. Here the distinct indication is, if possible, to rouse the arterial system into action, and thus convert the disease into one or other of its more tractable forms—the simple or the inflammatory. this purpose we know of no means so effectual as the use of powerful emetics. While this class of medicines has been much too highly extolled as a means of cutting fever short, there is a more important use of them, which is less familiar to practitioners, that of rousing the circulation in fever attended with deficient arterial action: in such cases, the exhibition of a strong emetic will frequently change the aspect of the disease, and establish a salutary reaction. The practitioner need not be deterred from the use of such remedies by the apparent prostration of the vital powers: nauseating medicines indeed are by all means to be avoided; but the full effect of an emetic is always stimulating, and is useful in congestive fever, on the same principle as in malignant cholera. A large dose of ipecacuanha is perhaps the best

emetic to use in such cases. Some other means, as the warm bath and gentle stimulants, are naturally indicated, and will be found serviceable in this form of fever.

Simple fever, where the system resists with sufficient vigour the impression of the morbid cause, and no local inflammation supervenes, is a case which may be consigned to the vis medicatrix naturæ with every prospect of a fortunate result: except, indeed, attention to the state of the bowels, ventilation, cleanliness, and diet, we know of no means which are

not more likely to prove injurious than beneficial.

In the inflammatory form of fever, the means available for the subjugation of ordinary inflammation are indicated, but under certain limitations. It sometimes happens that the local affection may be subdued at the commencement, and the disease converted into simple fever, which must be left to run its course, for the best of all reasons—that we have no means of arresting it; but it much more frequently happens that the local inflammation cannot be entirely subdued, and the object of the practitioner should then be so to moderate it, as to prevent its terminating in organic lesion. It is here that rash antiphlogistic practice is so pernicious, and the bad effect of certain exclusive pathological views so conspicuous. The physician who, having detected inflammation of an important organ in a case of fever, makes up his mind that the essence of the disease consists therein, that such inflammation must at all events be entirely subdued, and that depletion must be persevered in till this end be attained, will in all probability fail in his immediate object, and, what is worse, will sink his patient into such a state of debility as to render recovery extremely doubtful. We repeat, that the practitioner who regards fever as simple inflammation of the brain, bowels, or any other part, and acts implicitly on this supposition, will destroy many patients, who, if left to nature, would have recovered: it is fortunate, however, that most of these inflammatory pathologists do not act implicitly on their own doctrine; thereby in effect admitting its invalidity.

The treatment of inflammation accompanying fever sometimes exercises severely the judgment of the practitioner. It may happen, on the one hand, that local inflammation continues so acute as to endanger disorganization of a vital part; and, on the other, that antiphlogistic means have already been pushed as far as prudence will allow. It is under these circumstances that mercury becomes so valuable an auxiliary, and frequently enables us to arrest the local disease, and to save the patient. Much more extensive utility has been

ascribed to mercury in fever; but on this subject we entirely concur in the sentiments of our author.

"Mercury, independent of its purgative action, has been used, and frequently recommended, both as a prophylactic and therapeutic agent in fever. Many able physicians have given it as their opinion that, when it could be given so as to affect the mouth, the fever would cease. Here, however, we labour under the ambiguity as to whether the mercury acted because the fever ceased, or in spite of the fever, and so caused its resolution. The sum of the evidence on this subject seems to me to prove that sometimes the one occurrence took place, and sometimes the other; that some persons are capable of having their mouths affected by mercury in fever, which thereupon disappears; and that others, either from the stronger hold of the disease, or some inexplicable peculiarity of constitution, are insusceptible of the mercurial influence until the fever ceases. Yet patients will occasionally die of fever, notwithstanding the production of ptyalism: this, however, appears to be an exception to the general rule. From all, however, that I have been able to learn on the subject from others, as well as from my own experience, I have come to the conclusion that the administration of mercury as a sialagogue in fever, and with a view to cut short the complaint, though sometimes successful, is on the whole an uncertain remedy, and inferior in point of efficacy to other modes of medication. Of course, I do not include in this remark the exhibition of mercury with opium in fever complicated with inflammation, after bloodletting has been carried as far as it is practicable, nor when it is given in small doses as an alterative. I have myself, upon the recommendation of those who had used it, given mercury in several instances during simple fever, to an extent sufficient to have produced salivation in a person in health: this result, however, never occurred, either during the complaint or after it had ceased; nor did it produce any influence on its duration, or otherwise. I have never tried it in a very bad or fatal case; and it will be obvious, from the preceding, that I do not feel inclined, on the whole, to recommend mercury in the form of a sialagogue as a general remedy, in ordinary cases of fever." (P. 173.)

We could have wished to have illustrated the treatment of fever by frequent references to Dr. M'Cormac's book; but, as we have before observed, this treatise, however excellent, is only so in the aggregate—it would be very difficult to cull its anthology: we must therefore be content to recommend it strongly as an elaborate and judicious review of facts and opinions, and withal a philosophical and practically useful treatise on the important subject of fever. A little more attention to arrangement would have made it an excellent book of reference.

Observations on the Causes and Treatment of Ulcerous Diseases of the Leg. By J. C. Spender, M.R.C.S.—London, 1835. 8vo. pp. 210.

When an author prefaces his work by a statement that he has seen a thousand cases of the disease on which he writes, he must expect that such an announcement will produce a twofold effect upon his readers: for while, on the one hand, it commands an attentive examination of his opinions, it must, on the other, raise their expectations as to the interest and importance of the discoveries that have resulted from such extended experience. The offspring of such favourable opportunities of study on the present occasion is a method of treatment which must be considered rather as a modification of an old, than as any new line of practice. The author is sanguine as to its success, but we regret to say that he has not thought it worth while to narrate a single case in which it was employed. We do not mean in any way to distrust his assertions that his plan has been eminently serviceable in his own hands; but surgery is so essentially dependent upon facts, that we cannot conceive how any surgeon, who possesses cases to quote, can write a book without inserting at least a few to support his statements, and induce other practitioners to adopt his recommendations. One great distinction between the works of the long-established practitioner, who writes to instruct his fellows, and those of the unfledged youth, who writes for notoriety, is, that the one appeals constantly to facts which have occurred under his own observation, while the other relies on authority as the foundation of his reasonings. It would be absurd, as well as unjust, to enrol Mr. Spender in the latter class; for the accuracy of many of his distinctions, as well as the ease of his style, show a long familiarity with the subject. He is unquestionably a member of the more enviable class: we allow his claim to the estate, but are angry with him for refusing to exhibit his title-deeds. We do not know whether his discoveries were sufficiently numerous to make it necessary to embody them in an octavo volume; but, as authors and readers have long had different interests in the size of a work, we shall adopt the side of the latter, and, by confining our examination to such novelties as it contains, we shall at once do justice to our author's merits, and at the same time save our readers the trouble of perusing a quantity of matter with which they must be already acquainted.

The work is divided into four chapters: the first being devoted to the causes and classification of ulcers of the leg;

the second, to the general principles of treatment; the third, to the application of these principles; and the fourth, to the question of the safety of healing ulcers. We shall make a few observations upon the first three chapters; but the question in the last has been so long settled, that we were not aware, till Mr. Spender's work came under our notice, that there was any one who would think it worth while at the

present day to waste words upon the subject.

Our author commences by attempting to show that the dependence of the lower limbs, and their distance from the centre of the circulation, are not the common causes of ulceration of the legs. His argument, which is rather long, is founded upon the fact that everybody's legs are similarly situated: why then, he asks, does not everybody suffer? This would scarcely require an answer, if it were not that we are rather fond of proving that our forefathers were not absolutely fools; a doctrine which, it seems, every modern writer is anxious to establish. No one has, as far as we know, ever asserted that these circumstances were more than predisposing causes; and the experience of every modern surgeon will bear us out in the assertion that wounds more readily heal, cæteris paribus, in proportion to their proximity to the heart. But our author himself, in a subsequent part of the work, is willing to attribute to their position the frequency of varicose veins in the lower extremities, which varicose veins give rise to the majority of ulcers. This only places the dependence of the limbs one step further back in the scale of causes, so that the difference between his opinions and those of other surgeons is scarcely worthy of mention, much less of prolix argument.

The next point on which our author insists is, that varicose veins are not the accompaniments only, but the veritable causes, of the varicose ulcer; and he enters the arena against Mr. Benjamin Bell and Sir Everard Home, who do not, in his opinion, attach sufficient importance to their agency. But our author should remember that these are not the latest writers upon the subject, and that since their day our knowledge of the absorbing power of the veins has been much increased by the experiments of Magendie and others: nay more, there are surgeons, of high reputation too, who attribute the process of ulceration to the undue increase of this ab-

sorbent power.

The next point of importance touched upon by the author is the occurrence of irritable ulcers from varicose veins; and, as he entertains a rather novel opinion upon the subject, we shall quote his own words.

"Now it is not in the callous or indolent ulcer only that the varicose state of the veins prevails and pre-exists; it is very commonly met with in the irritable sore, and it is not easy to assign a reason why it should not here act a part equally important. If it produce any effect in the former case, it is not likely that it is harmless or inefficient in the latter. The mere circumstance of its forming at one time an ulcer of an indolent kind, is no reason why it should not form, at another time, an ulcer of an irritable kind; because we constantly see the same disturbing cause giving rise to different pathological effects, according to some modifying power in the constitution, or in the seat of the disease. Nor is it difficult, I think, to assign the reasons which appear to alter the operation of the one common cause, and which account for its giving rise to dissimilar effects. I have generally found that the varicose affection exists, more or less, in all kinds of very severe and refractory sores of the leg; and some of the worst states of this diseased condition of the veins I have ever observed were in conjunction with irritable ulcers. The circumstances which appear to determine whether this common condition of the veins shall exhibit itself in the production of an indolent or of an irritable kind of ulcer, are partly to be attributed to the constitution, and partly to local causes. The irritable ulcer is most frequently formed in persons of health and strength; whilst the indolent ulcer is most commonly produced in individuals advanced in life, or suffering from a weakened state of the system. Thus, men experience the irritable description of sore more frequently than women, and young persons more commonly than old. Then, with regard to the local modifying circumstances, I have almost always found that the indolent ulcer is situated more deeply than the irritable one; the former appearing to attack both the integuments and the less sensible cellular textures underneath, whilst the latter is chiefly confined to the vascular and excitable tunics of the skin itself. That this is the true explanation of the difference in the two instances, I am convinced, not only from having almost constantly observed a very bad ulcer of the leg, of either kind, to be preceded by a varicose condition of the veins, but still more decisively from having occasionally found, in the same individual, the same cause giving rise sometimes to one effect and sometimes to the other, according as the deeper or more superficial parts of the leg were affected. One of the most indolent and one of the severest irritable ulcers I have ever seen, were both situated on the same leg; the former placed more deeply in the substance of the limb, and the latter more superficially on its surface. Nor was this to be accounted for by supposing that the indolent ulcer was lower down the leg than the other, and thus farther from the centre of the circulation; for it happened that this ulcer was high up in the posterior part of the calf, whilst the irritable sore occupied the dorsum of the foot and front of the shin." (P. 18.)

This is a point on which Mr. Spender would have done well to have favoured us with cases. At present, the single case to which he alludes admits of a different explanation. Ulcers upon the instep are almost invariably irritable, even when not dependent upon varicose veins; and this evidently depends upon their situation, viz. upon the front of a joint which is constantly in action. We are therefore not prepared to accede to our author's hypothesis, that the irritability of ulcers depends upon their depth; though we quite agree with him in believing that irritable ulcers may be consequent on varicose veins. We are rather inclined to attribute this irritability, when it occurs, either to some peculiarity in the situation, as in the instance above mentioned, or more commonly to the state of the constitution. Every one must have seen indolent sores take on an irritative action, during some temporary disorder of the constitution, which has subsided when that disorder was removed. Of the relative number of irritable and indolent sores, our author has furnished us with the following table.

" Out of a hundred cases I have found

76

```
79 Varicose, consisting of 41 simple, 27 very irritable, 11 very indolent.
21 Non-varicose — 15 ditto, 4 ditto 2 ditto.

Of the whole number, 68 females, 32 males.

Of the 79 Varicose, 59 ditto, 20 ditto.
```

Of the 21 Non-varicose, 9 ditto, 12 ditto." (P. 29.)

From the frequency of the varicose ulcer on which our author insists (and we think justly,) more than is generally done in books, he would derive his classification of ulcers. The following passage contains the method which he would wish to adopt.

"All ulcerous diseases of the leg appear to admit of a very easy and natural arrangement into general and local; and accordingly this has been adopted by almost every writer. The first, or constitutional class, is subdivided in conformity to the nature of the diseases from which the sores arise—as venereal, scrofulous, and the like. The subdivisions of the second or local class, instead of being derived, as is usually the case, from the mere external aspect of the ulcers, should, I think, be taken from the more important and permanent distinction arising from the presence or absence of the varicose state. All sores of this class may therefore be arranged under two orders, determinable by the condition of the veins,—first, varicose; second, non-varicose. Under each of these orders may be retained the species or distinctions arising from the superficial appearance and character of the ulcer, according to the threefold degree of action exhibited—irritable, simple, indolent. Thus we should have varicose irritable, varicose simple, and varicose indolent; and non-varicose, irritable, non-varicose sim-

ple, and non-varicose indolent. The two general classes may be further considered as separate or combined, according as the specific sore takes place on a varicose or non-varicose limb; giving, for instance, venereal varicose, venereal non-varicose, each possessing its threefold degree of activity; and so of the rest. The object of such a classification is to make the presence or absence of the varicose affection one of the leading foundations on which the whole is built, as being the element of the greatest practical im-When I have observed this simple distinction in practice, I have in general found that it is comparatively of little consequence whether the superficial aspect of the ulcer be what is termed irritable or indolent, exuberant or callous. An attention to the varicose condition of the veins, when present, has, with nearly equal facility, removed each variety of ulcer, by the use of the same form of application hereafter described; whilst, on the contrary, the same application to the same kind of ulcer, so far as its mere external appearance is concerned, varies in its effects, just in proportion as it depends on the varicose state, unless great attention be directed to this constituent of the disease. Nothing can be clearer, therefore, that this last characteristic furnishes a much surer ground for a practical arrangement of ulcers than the former; or rather, that the former affords none at all.

"I believe all the ordinary arrangements of ulcers of the leg, taken from the mere superficial appearance and external character of the sores, are essentially defective. The inquiry should not be so much what is the outward aspect of the sores, as what is the inward state of the veins and other structures of the limb; as this last is chiefly to determine the plan and practice of treatment. I have commonly found that, if two ulcers of dissimilar external appearance result from this cause, nearly the same method of treatment will remove them; whilst, for the cure of two ulcers of the same superficial character, if the one arise from this cause, and the other not, a difference of management will often be required." (P. 52.)

We perfectly coincide in the propriety of our author's classification: it is evidently the result of experience, and leads to sound practical indications of treatment. We are, however, forced to dissent from his opinions with regard to the value of the appearances of ulcers in guiding our treatment. Every practitioner may not understand what these appearances indicate; but such as possess that knowledge must be too well aware of its utility, to surrender it at the command of any writer, however experienced.

The general principles of treatment recommended by our author are, 1st, in cases where the system is adequate to the removal of the disease, to imitate, as far as possible, the natural process; 2d, in other instances, we must endeavour to

place the system in a position which will enable it to accomplish the cure; or, in other words, we must endeavour to produce a healthy action. For the former purpose, Mr. Spender recommends the formation of a scab over the surface of the ulcer, by means of an ointment, into the composition of which a large proportion of chalk enters. As this is the principal practical point of any novelty in the work, we shall quote the passage containing it.

"When the cure is left to nature, it seems to be only a superficial ulcer, which will readily scab; for, if it be deep, the quantity of matter is too great to be speedily evaporated into a crust. Now we can, in these cases, greatly assist the natural process by the addition of some harmless substance, which will thicken the discharge, and thus produce an incrustation; whilst, even in ulcers situated more on the surface, and which would sooner spontaneously scab, the same application will hasten the formation of

the covering required.

"Of all the kinds of outward application which I have tried, an ointment containing a very large quantity of prepared chalk forms the best artificial crust. The earthy matter must be in a much greater proportion than enters into any ointment in the Pharmacopeia, consisting of about three pounds of chalk to two pounds of lard. Even four pounds of chalk will be readily taken up by two pounds of lard; and, if about three ounces of olive-oil be added. the ointment will not be too stiff, but will easily admit of being spread on the linen. The best method of preparing this application is not by rubbing the chalk down with the lard, but, having previously reduced the chalk to a very fine powder, heat the lard to a tolerable temperature, and, whilst it continues hot, gradually add the levigated chalk in the same vessel in which the lard was warmed. By this means it forms more of a solution than a mere addition, and the two ingredients thus become more intimately blended together. This should be stirred until it is nearly cold, and then placed by for use. I have found that preparing the ointment in this manner is preferable to the more usual mode of making such substances, by simple admixture or trituration, as it produces a mass more homogeneous, containing less of the earthy particles in a distinct or separate form." (P. 64.)

From the use of this ointment the author proposes four advantages.

"1. It is extremely mild and harmless in its nature, so that it very rarely produces pain. Out of several hundreds of cases in which I have employed it, I have scarcely known more than two or three in which it did not give great and immediate ease; and in these exceptions there were other circumstances existing to account for the fact. I have frequently heard patients exclaim how comfortable their legs have felt as soon as any irritating application

has been thrown aside, and the chalk-ointment applied to the sore. The mildness of this application is probably owing to the large quantity of the alkali, which is ready to unite with the acid generated by the animal matter, on the presence of which rancidity appears to depend; and thus the lard is prevented from running into this state. It is well known that most of the common ointments soon become rancid by keeping, and that they are then very irritating to a sore. The chalk-ointment however never spoils, but retains its freshness for any length of time.

"2. As soon as the lard is melted by the heat of the part, and absorbed by the bandage, (and no more is employed than sufficient to hold the earthy matter in combination,) the chalk is disengaged, and a portion of it combines with the discharge. This fluid, in many ulcers, is extremely acrid; inflaming and excoriating the skin in the neighbourhood, and perhaps, on the principle of inoculation, perpetuating the disease. Some of the chalk unites with this secretion, and, greatly depriving it of its irritating properties,

converts it into a comparatively harmless compound.

"3. Partly from this compound, and partly from other portions of the chalk itself, an incrustation is formed, first on the surrounding skin, then on the margins, and at last on the face of the ulcer. This crust is produced in a very gradual manner; and, when the discharge is great, sometimes none is deposited for the first two or three dressings. It is this slow method of its formation that constitutes its excellency, as in this respect it resembles the concretion of the natural scab.

"4. From all these circumstances combined another great advantage is obtained. The dressings are not required to be removed so frequently, and the surface of the ulcer is consequently less exposed to disturbance. The mildness of the application, together with its neutralizing powers, lessens the pain; whilst its union with the discharge, or its more direct deposit, forms a harmless crust, to shield and protect the adjoining tender skin. The consequence is, that the dressings will remain on for a much longer period without producing uneasiness than when some other descriptions of ointment are employed." (P. 65.)

The formation of the scab is much more gradual, according to our author's experience, when the chalk is thus precipitated from an ointment, and its surface is more even and better modelled to that of the sore, than when the powder is sprinkled on the part.

In cases of blisters and burns, where the cutis vera is not destroyed, this latter plan has been long in use; but we doubt whether it may not give place with advantage to that

proposed by our author.

There are four circumstances, however, which may prevent the cicatrization of the ulcer under the use of this ointment: viz. 1st, varicose veins; 2d, adventitious deposits; 3d, the form of the ulcer; 4th, the existence of constitutional disturbance; and it is in these cases that the second general principle before mentioned must be brought into action. This is effected, in the first two instances, by the employ-

ment of compression.

The views which our author entertains of the method in which pressure is useful to a limb, are very sound. Mr. Baynton, whose name must be honourably mentioned whenever the treatment of ulcers is in question, did not sufficiently insist upon the value of the general compression to the subcutaneous structures, but appeared to attribute its principal efficacy to its approximating the edges of the ulcer. Mr. Spender, on the other hand, distrusts the benefit derivable from this source. For our own part, we hold a middle course between these two writers. We have frequently seen the application of a few short strips of plaster across the sore greatly expedite its cicatrization, though at the same time we placed our principal reliance on the general pressure of a The support of the venous circulation, and the stimulus to the absorbents to remove any adventitious deposit, are undoubtedly the most important advantages of compression, and our author has pointed out this fact with great distinctness at the conclusion of the chapter on the general principles of treatment.

The method in which these principles are to be applied forms, as we have said, the third chapter, which commences with a philippic against poultices, which our author would entirely banish from our store of remedies. His arguments, as might be expected, are far from strong, and we shall therefore reply to them no further than by assuring him that poultices are not only useful when the parts are sloughing, but when there is considerable inflammation, and but little discharge: where there is tension around the edges of the wound, attended by pain, there is no remedy that gives so much relief as this despised poultice. Where different stimulants have been applied for a long time, till the base of the sore has become hard, and its surface callous to their action, the use of a poultice for a few days will soften the

parts, and restore their previous excitability.

It seems to us that our author is too sanguine in his temperament, for he is never convinced that a remedy is good but he thinks it necessary to denounce its opposite as bad. With much truth he asserts that ulcers will heal during the employment of exercise, provided that a tight bandage be worn round the limb; but this is not sufficient,—he must

prove that rest is prejudicial. From long experience in the treatment of old ulcers of the leg, we have come to this conclusion, that they will heal more expeditiously where the horizontal position is preserved, than where the patient is allowed to take exercise; but that in the former case they are

more liable to give way than in the latter.

We cannot pass over page 100 without censure. A note is attached to it, which looks like a close imitation of the paragraphs that have for several years sullied some periodical medical publications. We can assure Mr. Spender, that rank in a liberal profession is not to be obtained by the depreciation of others, nor by encouraging pupils to criticise and arrogate superiority to their teachers. Should his work reach a second edition, we trust that this note will be expunged. Here is the offending spot.

"I trust it will not be imputed to any unworthy motive, if I quote, in confirmation of this statement, an extract from a letter, written by an observant young man, who has lately left me to attend the hospitals in London: 'I took the opportunity of being present the other day, when -, one of the surgeons, was prescribing for the out-patients, and, as is always the case, there happened to be plenty of ulcerated legs. Among the rest, a poor woman unrolled a large poultice from a varicose ulcer, which, by the by, I would have cured in a month. ----'s remarks were much as follow: "Gentlemen, this ulcer is plainly produced from a varicose state of the veins: now, nothing will do in these tedious cases but rest; rest, gentlemen, is the grand desideratum." The woman's reply was, that she could not possibly afford to lie in bed, as she had a family to support. Then — told her, "Your leg will never get well, but you shall try some fresh application." He accordingly prescribed the black wash, which he appears to make use of in all those cases which are not poulticed. I am afraid -'s treatment is too general.'"

We now come to our author's plan of dressing the sore, which we shall allow him to describe in his own words.

"The first thing is, to cover the surface and sides of the sore for some distance beyond its edges with the chalk-ointment, spread about the thickness of a wafer on thin linen. I think the linen is preferable to lint, as it seems to allow the disengagement of the chalk more readily. No compresses of any sort are placed on this, as I am convinced the frequent use of paddings of linen, calico, and the like, placed between the dressing and the roller, are prejudicial, by unnecessarily loading and heating the part, and by confining, or preventing the escape of the matter." (P.114.)

Here follow some very minute directions for the application of a bandage. The author is in the habit of applying NO. VII. his bandages very tight. The best rule we believe to be, the tighter the better, provided that they do not produce pain. But to proceed with his directions for dressing the sore.

"The length of time which elapses before the bandage and dressings are removed and reapplied, must, of course, be regulated by the circumstances of the case. When the ulcer is very extensive, and the discharge proportionally great, it will be necessary to dress the leg, perhaps, every day, at the commencement of the treatment." (P. 134.)

"The object is, to delay the removal as long as possible, without, however, carrying this forbearance too far; and if, instead of measuring the time by the mere number of hours or days, we take the surer criterion of the presence or absence of uneasiness, we shall be in no danger, on the one hand, of acting too soon, or, on

the other, of waiting too long.

"It is true that sometimes the quantity of discharge is so considerable, and becomes so offensive, that common cleanliness demands the frequent renewal of the dressings. In such instances it will be commonly found that some uneasiness also is felt by the patient; but, even if this should not be experienced, the laudable wish, on his part, of being kept as free as it may be possible from filth and stench, must be obeyed, and the dressings may then be removed, without waiting for the presence of any other inconvenience." (P. 136.)

"The bandage being undone, the thin linen dressing is raised very gently, in order to allow as much of the chalk-ointment to be left behind as may be attached to the surrounding parts and surface of the sore. We shall frequently find, even after the first dressing, that a thin film is formed about the margin, especially at the upper side, however large the ulcer may be; and, if it be a small one, in addition to the deposit on the edges, some of the incrustation may probably be observed on the face of the sore. This must not by any means be taken off; it is treason to touch the chalky scab." (P. 137.)

"At each succeeding dressing, we commonly shall be able to observe a gradual increase of the chalky incrustation, first on the sides of the ulcer, then on its margin, and by degrees over its surface. Before, therefore, it covers the sore, it is placed all over the bordering integuments, which is a circumstance of very great importance. Every one must have seen that sometimes the surrounding skin becomes excoriated, and even ulcerated, by the discharge; and this, as has been already alluded to, is one cause which renders the frequent removal of the dressings necessary. As soon, however, as the chalky crust is formed, it effectually shields the delicate skin from the presence and irritation of the matter, the fluid passing down over the incrustation without touching the neighbouring integuments. The skin is thus protected from the

exciting properties of the purulent or other fluid, and being likewise shut in from any external influence, becomes firm, substantial, and sound. There is no danger, as I have already stated, that the chalky crust will form over the ulcerated part, and become a barrier to the escape of the fluid. A layer of powdered chalk in substance, or a thick watery solution of it, will indeed produce an impervious coating, and confine the discharge; but the slow and gradual manner in which the artificial scab is deposited by the use of the ointment, renders this evil unlikely. So long as the discharge continues considerable, it is enough to wash off the thin film left by the chalk-ointment, and to prevent its attachment to the face of the sore; and it is only as the discharge diminishes that the crust is completed." (P. 139.)

"When the ulcerated surface is gradually covered by the chalky crust, and its whole extent is included, it should not be disturbed until a sufficient time has been allowed for the entire part to heal underneath. I have been struck with surprise to see how rapidly this is effected, when thus shut in and protected, as Nature herself would do it; but still an idle curiosity to see how things are going on below should never be indulged. As soon as the ulcer is completely healed, the artificial scab becomes hardened, from the want of the moisture from the discharge; it then cracks, and, separating into pieces, comes off by degrees itself." (P. 142.)

Such are the details of the plan proposed by the author. It certainly appears feasible; but we have never tried it, and the book contains no cases of its success. It is but just to say, that Mr. Spender has entered so minutely into the subject, that we have no doubt of his having employed the method extensively. We can only say, that we intend to give it a trial.

The remainder of the chapter is devoted to observations on the modifications of this plan, required in certain states of the ulcer: they are, however, little else than the ordinary rules for the dressing of irritable and unhealthy ulcers, which it would be a work of supererogation to present to our readers. But the following observations are so good, and, as far as we know, not generally known, that they deserve to be an exception to our rule.

"Whilst, however, the general indication for the employment of compression is as discernible in the majority of irritable ulcers as in the other varieties, there are occasionally existing circumstances which interfere with the full application of the principle to practice. Sometimes the ulcerated part is so tender, and excruciatingly painful when touched, that it will scarcely bear anything on its surface; and in such instances it would be cruelty to apply a tight bandage over it. In these cases, before they are made better, and able to submit to compression, very great benefit may be derived

from using the roller in the following manner: Let the bandage be applied as tightly as usual, from the root of the toes up to the lower margin of the sore; and, when it has arrived at this point, it can be secured, and placed on more slackly around the remaining part of the limb, so as not to give pain by its local pressure on the The support which is given to the vessels below greatly improves the character of the sore: it soon becomes altered in appearance, and, what is of great importance, considerable relief from severe suffering is commonly felt. By this means, though prevented from obtaining the full advantage of the bandage at once, from the sensitive nature of the ulcer, much of its benefit is nevertheless gained; and the diseased part is soon converted into a state which will bear the more complete use of the remedy. other times the irritable sore, though not so intensely painful, may be situated on a part of the leg which makes it incapable of bearing the bandage to its proper degree of tightness. One very common place which such ulcers occupy is the front of the leg. running up the shin; and such parts will not endure to be pressed by the bandage on the hard tibia immediately underneath. We must then put the roller on the foot and around the ankle, according to its usual degree of force, until we approach the seat of the evil; and, having arrived there, we must allow the bandage to describe the other parts of its course without being so tight. When, therefore, either from the severe pain, or from the local position of the irritable ulcer, the patient cannot bear the full pressure at once, we must be satisfied to compromise matters a little, and proceed more slowly in our efforts. This, however, is very different from abandoning the principle, losing sight of the origin of the disease, and, forgetting the indication thus afforded. using fomentations and poultices. Strictly speaking, indeed, such modified use of the bandage, gradually increased up to its proper extent and power, can hardly be called an exception to its use: it is only a temporary limitation of its application, resulting from circumstances associated with the disease." (P. 166.)

We have now given our opinion freely on the merits and demerits of the work. The latter are such as may be easily removed by the publication of a few cases, and the insertion of a few horizontal scratches in the manuscript: the former will remain evidences of Mr. Spender's industry in collecting facts, and talent in commenting upon them.

Traité complet de l'Art des Accouchemens, &c.—A Complete Treatise on the Art of Midwifery; or, Theoretical and Practical Tocology, with a Compendium of those Maladies which complicate Pregnancy, Labour, and the Puerperal Condition, and of those to which Newborn Infants are liable. Sixteen Plates. By Alfred Velpeau, Professor of Clinical Surgery to the Faculty of Medicine at Paris; Surgeon to the Hôpital de la Pitié, &c. Second Edition, corrected and augmented.—Paris and London, 1835. 8vo. Vol. I. pp. 572; Vol. II. pp. 580.

It is customary, and it is generally necessary for reviewers, so numerous are the works that are constantly issuing from the press, to dismiss a second edition with a brief survey of those chapters which have undergone considerable alteration; but we shall, upon the present occasion, deviate from the ordinary rule, and give to M. Velpeau's work as lengthened a consideration as if he had not before addressed the profession upon the same subject. The present treatise is indeed rather a new work, than a new edition. The first edition was merely an abstract of the author's lectures, and intended merely for students: that before us contains three times as much matter as its predecessor, and every important

subject has been rewritten and remodelled.

We are so accustomed to meet with promises in prefaces that seem to be altogether lost sight of in the work itself, that we usually pass over the latter with indifference, and hardly expect that the former will be fulfilled. M. Velpeau assures us, in his preface, that he has endeavoured to be unjust to no man; that he has spoken of all without hatred or prejudice, but at the same time without enthusiasm, and with the most perfect independence. "The sciences form a republic, in which every man should be at liberty to search and examine; to have his opinions, and to state what he Truth is the avowed object of all those who cultivate them; but, as truth may be arrived at in various ways, I could never understand why a rational man should be offended because his ideas were not regarded as a law by others." We like the spirit with which this is said, and we like still more the fidelity with which we find, upon an attentive perusal,—not a hasty chapter-of-contents view of the book,—M. Velpeau has acted up to his prefatorial professions. Our opinion of the general character and merit of his work will be in better place after we have given a sketch of its contents; but we may tempt our readers to follow us more readily by at once giving to him full title to the claim of perfect impartiality in all his discussions. Tros, Tyrinsve,

French, German, or English writers, are all frankly, but upon the whole very fairly, treated. Still more too to his credit, he holds the balance as evenly with respect to his own opinions, and not unfrequently admits he may be mistaken, from respect to the opinions of others, even upon subjects to which he has devoted a large share of his attention. "Peut-être je me trompe moi-même," is, in our estimation, a phrase of good import: it justifies confidence where a decided tone is assumed.

The term tocology, derived from rokos, labour, and horos, study, which M. Velpeau would fain introduce for the more homely word Accouchement, or midwifery, now in general use in this country, is classically unobjectionable, but we

doubt whether it will ever come into general use.

In a short introduction, M. Velpeau touches very properly upon a subject, which in this country also has been discussed with more of acrimony than justice, the importance of the art and science of midwifery. He briefly but completely refutes the opinions, or rather the assertions, of those who have vilified the practice, and attempted to degrade the practitioner of this branch of medical and surgical science. We have ourselves grown grey in the practice of midwifery, and feel, we trust, a laudable wish that our junior contemporaries may not be misled by a few cynical philosophers,—knights-errant against the science of midwifery, who, by means of letters in the "Times," and circulars "to the Ladies," have in vain exerted their little power to lead the public to believe that midwifery is an art which is at once "degrading to those who practise it, and utterly useless to the public." Roussel, in France, was one of the leading advocates of this doctrine, and we confess that the eloquence of his language might sometimes make us forget the weakness of his arguments. In this country, we have no such formidable foes to contend with; for here the talk of our contemners is only dangerous to the cause they plead. There was indeed a time when the duties of the accoucheur were limited to attendance during the act of labour, and to the administration of a few simples. or to the trial of charms, after it. Even then he was useful in his calling: but now he claims a higher rank in the profession; for not only is he looked to for assistance during the act of labour, but, by common consent, the public intrust to him many of the most serious maladies of women and children.

Among many causes which long contributed to check that improvement in the art of midwifery, which zeal and talent effected in other branches of medical science, none more

effectually barred its progress than the popular, and even professional, belief of its inutility. But, without drawing any invidious comparison between the importance of the various duties that are now intrusted to the accoucheur and other medical practitioners, it may be fairly and honestly asserted, that they are not inferior to any which more especially belong to other branches of the healing art. It is therefore not only deceptive to the student, but dangerous and cruel to society at large, to conceal from him the responsibility he imposes upon himself in undertaking the duties of midwifery. He who expects to have no difficulties to contend with, will make no preparations to avert them; and, when he meets with perplexities, of which he had been taught to disbelieve the existence, he fancies that none were ever so entangled before him, and sinks speedily into despair. We hope and believe that the young men of the present day have too much common sense to be induced, by any wandering lecturer, to neglect the study of midwifery, from a belief that it offers no subjects worthy of their attention, or that the skilful practitioner of it has not the same and as frequent opportunities as others of his brethren of mitigating the sufferings of his patients, or of snatching them from danger. The most prominent feature, says Dr. Bisset Hawkins,* afforded by medical statistics, next to the diminished mortality of infancy, is the remarkable change which has supervened within the last century in the fate of lying-in women. In 1750, at the British Lying-in Hospital of London, one woman died out of forty-two. In 1780, one died in sixty; and, lastly, the improvement became so great, that only one case was fatal out of 258, in the ten years between 1789 and 1798. The deaths of the children during all this period preserved a constant proportion to the fate of the mothers. In 1758, one newborn child died out of fifteen; in 1780, one in forty-four; and in the last decade, from 1789 to 1798, only one in seventy-seven. Various other reports, from public and private sources, might be adduced of a similar kind, to establish the fact of the rapid decrease in the mortality of lying in women and children; and, as an anonymous writer cannot be accused of egotism, the reviewer may safely state that, in twenty-three years' active practice, during which time he has attended upwards of two thousand women during and after labour, but four have died of disease connected with parturition, and not one during or within a week after their confinement. To what cause can such a decrease

^{*} Elements of Medical Statistics. By F. Bisset Hawkins, M.D. 1829 .- REV.

of mortality be owing, but to the increased skill of practitioners of midwifery; and what better proof can be given of the

utility of their art?

We pass over M. Velpeau's historical notice of the progress of midwifery, not because it is without interest, but that we may enter upon more practical matter. It is immediately followed by a synopsis of the divisions of labour, adopted by different French and German writers; and statistical records of the mortality of lying-in women, in different public esta-

blishments for their reception.

The first 110 pages of the work are occupied with a good account of the pelvis and female sexual organs. Important as these subjects are to the student, they offer but little matter for comment to the reviewer. They comprise indeed the grammar of midwifery, and, without a thorough knowledge of them, no man can practise, with safety to his patients, or with that degree of self-confidence which is essential to his own comfort. Hence, then, we cannot but regret that some of our midwifery lecturers omit these subjects altogether, or treat them too superficially, and trust them to the anatomical teacher, who gives little if any time to those points which claim the greatest attention from the obstetrical student.

At page 15 we see an error of the press, which might perplex a tyro. In describing the axis of the *superior* strait of the pelvis, the word *inferior* is printed instead of superior.

There is one point of practical importance connected with the subject of deformity of the pelvis, to which we think M. Velpeau too briefly alludes. With the fact to which we refer the practitioner should be acquainted, that he may neither injure his own reputation by a hasty opinion, or create unnecessary alarm in the mind of his patient. He must not infer that the pelvis is deformed, because there is distortion of the spine. We know, from our own experience, as well as from the testimony of others, that great curvature of the spine may exist, and yet the woman have very easy labours. On the other hand, the pelvis may be distorted where the spine is not. The pelvis will seldom be found affected, unless distortion of the spine began in early child-When the curvature begins after the age of twelve, the pelvis seldom suffers; but, if the distortion appeared before the age of five, the pelvis is probably narrow. late Mr. John Shaw remarks,* "that, in whatever state of distortion the spine and ribs may be, the bones of the pelvis

[·] On Spinal Distortion.

will not be found distorted, unless there be at the same time marks of rickets in some of the long or solid bones." Wilson, Ward, Stafford, and Beale, in their treatises on Spinal Distortion, confirm this opinion. We may mention a curious case, in illustration of the existence of great spinal distortion without pelvic deformity. We forget our authority, but we made a note of it immediately after reading an account of it.

A woman, aged forty, presented herself at one of the hospitals in Paris, to be treated for some chronic affection. Besides the most whimsical distortion of her spine, her chest was depressed, and she had a considerable protuberance on her back. She said she had become deformed at the age of eighteen, in consequence of some severe disease. She informed M. Dubois that she had had six children, and that she had never suffered the slightest difficulty in any of her labours.

Now, in such and similar instances, unless the practitioner were acquainted with the fact, he might not only give an erroneous opinion, and unnecessarily prevent a crooked lady from straightway being married, but he might also have recourse to hazardous and unnecessary operations in time of labour, from the conviction that the pelvis must be distorted

because there was great general deformity.

M. Velpeau next treats on the physiology of Menstruction, and gives a good and detailed account of the subject. immediate source of the menstrual discharge has been long a disputed point. Some, with Vesalius,* have presumed it flowed from the veins; others, with Ruysch,+ from the arteries, or from the capillaries, with Winslow and Meibomius. M. V. believes "that the menstrual discharge is a secretion from the uterus, exhaling or perspiring from the organ, but that it is not known whether it transudes rather from the venous than the arterial capillaries." In our opinion, he prudently abstains from wasting time in discussing the often disputed, but never to be determined, question of the final causes of menstruation, or why the discharge occurs periodically. Cabanist truly says, that the philosophy of final causes has never yet been able to bear the test of a rigid scrutiny, although the vain yet limited mind of man has induced him to reject the mortifying truth: and, with respect to the periodicity of the menstrual efflux, all we can say is, that all the periodical phenomena of health and disease have hitherto appeared among the inexplicable mysteries of animal

† Epist. ad Boerhaave, &c.

[·] De Fabrica Corp. Human. lib. v. cap. 15.

[‡] Du Degré de Certitude de la Medecine.—Rev.

We know not why the menses should be thrown off once a month, rather than after intervals of any other dura-M. Velpeau briefly mentions two cases, which merit the attention of many practitioners, who are too much in the habit of indulging the popular belief that, if the menses do not regularly flow in a female arrived at the age of puberty, medical means should be had recourse to, for the purpose of soliciting or of forcing the discharge. Now we take it, that, provided the health of the female does not suffer, the mere absence of the menses does not justify our interference. know," says the author, "a young lady, aged twenty-five, who never menstruated from the age of eighteen, and who still enjoyed perfect health." Again, a lady, æt. thirty-two, had never been "unwell" since the age of twenty-one: she also remained in good health. We know, from ample experience, that great injury is frequently inflicted upon young females, by the pertinacious use of forcing or emmenagogue remedies, as they are termed, merely because the age of puberty has arrived, and the menses do not appear. But girls are very often "backward;" they may be women in age, but children in form, retaining all the characteristic traits of childhood, and having none of the ordinary indications of approaching womanhood. Here nature has not prepared the constitution for the performance of the menstrual function, and the too common practice of endeavouring to hasten it by artificial means is injudicious and dangerous. We can readily excuse popular prejudices upon the subject; but the medical practitioner can know but little of the limits to which his art should be confined, if he endeavours to drive nature to establish a function for which she is yet unprepared.

With respect to the cessation of the menses, (that much-dreaded period of female life, when most women suffer from fancy, more than reality,) it should be borne in mind that, from the extensive statistical researches of MM. Châteauneuf and Lachaise, as many men die as women between the ages of forty and forty-five. We do not deny that, at this "critical" age of female life, the health does not sometimes suffer, and that disease, which had been previously lurking in the system, is now occasionally aggravated; but we do affirm, that the popular belief, and the professional doctrine, which attach so many evils to the cessation of the menses, are greatly exaggerated. The age is "critical" indeed to every woman; but it is more so because her beauty fades,

than because her health declines.

The next subject we approach is Reproduction, the most

wonderful phenomenon of animated nature, and one which has naturally excited the deepest attention of philosophers. As we do not believe our readers would thank us for occupying our pages with the fable of bygone days, we pass over the sketch M. Velpeau has given of the thousand-and-one hypotheses that have at various periods been hazarded upon

this subject.

Upon the much-disputed points connected with the formation, and even the appearance, of the corpus luteum, our author remains in doubt, and thinks, as we do, that it is a question "qui exige evidemment de nouvelles recherches." He has not referred to one, and in our opinion the best, authority upon this very interesting and really important topic: we mean to a paper by Dr. Montgomery, "on the Signs of Pregnancy and Delivery," in the 17th and 18th parts of the Cyclopædia of Practical Medicine. Dr. M. sums up a very careful examination of the subject by affirming his conviction of the truth of the two propositions of Haller, viz. that "conception never happens without the production of a corpus luteum," and that "the corpus luteum is never found in virgin animals, but is the effect of impregnation;" and he thinks that those who have supposed or asserted that the corpora lutea may exist without impregnation, and of course be found in the virgin ovary, have been led into the error by confounding appearances and structures essentially different, and in fact having only one character in common, which is their colour; altogether forgetting that "every yellow substance in the ovary is not a corpus luteum." When Mr. Angus was tried at Liverpool, in 1808, for the supposed murder of Miss Burns,* great doubt arose as to whether the condition of the uterus, or its appendages, was such as "It was not until to prove a pregnancy recently existing. after the trial that the ovaria were examined: they were then divided in the presence of a number of physicians, and a corpus luteum distinctly perceived in one of them." Mr. Hay took the uterus and its appendages to London, and shewed it to the most eminent practitioners: he received certificates from Drs. Denman and Haighton, Messrs. Henry Cline, C. M. Clarke, Astley Cooper, and Abernethy, all stating that it exhibited appearances that could alone be explained on the idea of an advanced state of pregnancy; and it appears to have been universally allowed that the discovery of the corpus luteum proved the fact beyond a doubt.

[•] Dr. Montgomery's paper, loc. cit., from the report of the trial.—Ed. Med. and Surg. Journal, vol. v. p. 220.

In the chapter on "Vraie Grossesse," (true pregnancy, in contradistinction to false or apparent pregnancy,) M. Velpeau gives a very detailed and accurate account of the anatomical changes that occur during utero-gestation. He believes, with Desormeaux, that the cervix uteri loses about one third of its length at the fifth month, one half at the sixth, two thirds or three fourths in the seventh, and that the remainder is effaced during the ninth. We are guarded, however, and very properly too, from taking these rules as infallible guides. "Repeated observation, and the most carefully conducted experiments, have singularly lessened the confidence which I once was inclined to grant them: the changes which the cervix uteri undergoes during pregnancy vary almost as much as its anatomical characters in the un-

impregnated female."

In determining the question of pregnancy, or the period, we are often at least confined to presumptive evidence, and, as such, we would not reject the condition and progressive changes of the cervix uteri; but abundant experience convinces us that the dogmatic rules laid down in books upon this subject are calculated to deceive the practitioner, even supposing that he has the tact to distinguish the progressive changes of the cervix. Dr. Gooch says,* "the examination of many uteri has taught me that the neck of the uterus is as much altered in some women at the fourth month as in others at the sixth, especially in those who have had several children, in whom the neck yields more readily than in the first pregnancies." "The neck of the womb," says Smellie,+ "will in some be felt as long in the eighth, as in others in the sixth or seventh, month. This variation sometimes makes the examination of the abdomen more certain than the touch of the vagina, and so vice versa. At other times we must judge by both."

The thickness of the uterine parietes during pregnancy is a subject which has been much contested by obstetricians. M. Velpeau says, that the uterine parietes retain nearly the same thickness during the whole course of utero-gestation as in the unimpregnated state. It varies, however, greatly in different women, and at different parts of the organ. We have now before us eight unimpregnated and healthy uteri, taken from young females, all of them differing greatly in substance as well as form. Their substance varies from one half to nearly three quarters of an inch. In one, the parietes are not above three lines in substance. Our friend, Mr.

† Treatise on Midwifery, Vol. i. p. 188. Fifth Edition.—Rev.

[·] Account of some of the most important Diseases of Women, p. 214 .- REV.

Griffith, has a uterus in his possession, so thin as to be nearly transparent. In three gravid uteri, at the full period, also in our view, we perceive the same difference in the thickness of the parietes; but generally the parietes of the uterus at the ninth month are decidedly thinner than in the unimpregnated state. Those who have asserted that the womb is much thickened during pregnancy, have probably been misled by examining the organ a few days after labour, when the parietes, as we now perceive, in preparations before us, are really thickened from contraction. In one of these preparations, a section of a uterus we removed from a woman twenty-four hours after labour, the parietes are full an inch thick; and often the substance is greater, especially at the fundus.

To explain the extraordinary development of the cavity of the uterus during pregnancy, the ancient writers, and even Mauriceau,* supposed that the ovum, as it increased in size, dilated the uterus. It is certain, however, that the dilating power resides in the uterus itself, and that it is quite independent of the mechanical distension produced by the product of conception. In extra-uterine pregnancy, for example, (as we see in a valuable preparation before us,) the uterus

dilates as in ordinary gestation.

"To explain the dilatation of the pregnant uterus, it is useless to imagine, with Malpighi, a principle of fermentation contained in the semen, or, with Blumenbach, a particular vital action. The turgescence of the uterus produced by impregnation, and kept up by the ovum, satisfactorily explains the fact. The congestion of the uterus produces in the organ an excess of nutrition. The new molecules that are deposited in it necessarily elongate its fibres. The vascular canals are lengthened and enlarged at the same time. This elongation cannot take place without augmenting the extent of the circles, or the curves, which each fibre and each vessel of the organ represents; and thus the development of its cavity is an inevitable consequence of the augmented nutrition of its parietes." (P. 168.)

During pregnancy, the bladder mounts above the brim of the pelvis; the urethra is hidden behind the symphysis pubis, and has nearly a vertical direction; the meatus is deep within the pubic arch, and thus the introduction of the catheter is rendered difficult in pregnant women. The pressure caused by the gravid uterus on the vessels in the pelvic cavity necessarily impedes the venous circulation of the surrounding parts; and thus we often see the external organs of

[·] Maladies des Femmes Grosses, p. 14.

generation, and the inferior extremities, cedematous, and their veins varicose, together with more or less severe pains in those parts, which depend upon compression of the lumbar and sacral nerves.

With most modern authorities, M. Velpeau admits that occasionally the strong articulations of the pelvis are so much relaxed during pregnancy as to allow a certain degree of motion between the bones. This is a point that was long very warmly contested, but in the present day, we believe, few practitioners deny the occasional separation of the pelvic bones during pregnancy. In one respect, however, a discrepancy of opinion still exists. Some regard the softening and relaxation of the pelvic joints as a constant phenomenon of pregnancy, while others regard it as a rare occurrence. Some consider it as a wise precaution of nature to facilitate the act of labour, while others view it as a dangerous disease. We have no doubt upon one part of the subject: we cannot conceive that such a degree of relaxation of the joints of the pelvis, as to lead to any, even the slightest, separation of the bones, could take place without the fact being quite evident, from the greater or lesser degree of difficulty and suffering the patient would feel in attempting to walk, or even to stand; both the difficulty and pain being quite different from that which sometimes arises from the mere weight of the gravid uterus. Now, the existence of these symptoms is very rare in pregnant women; and therefore we infer that the cause of them is absent in the great majority of cases. We believe that a slight softening of the pelvic symphyses generally takes place during pregnancy, but that any degree of motion between the bones is extremely unusual.

In M. Velpeau's account of the general symptoms of pregnancy we find nothing particular to dwell upon. With every other candid writer, he admits that the evidence they convey is far from conclusive. They may all exist in the unimpregnated female; and, on the other hand, pregnancy may go on, and none of them may arise. Still, in most cases, an experienced and careful practitioner will be enabled to form a very strong presumptive opinion.* M. Velpeau particularly insists upon the necessity, in doubtful cases, of an examination by the rectum, and the external examination of the abdomen; two sources of evidence which are in the present day too much neglected. We do not doubt the accuracy of his opinion, that, by external examination, "the existence of preg-

Upon this subject we would refer the young practitioner to Dr. Gooch's observations, loc. cit. p. 198; and to Dr. Montgomery's excellent paper, loc. cit.

nancy may be determined in as many women during the second or third months as in the fourth month, by examination per vaginam." But, query, in how many women can we resolve the question by either mode of investigation, at either of the periods he mentions. After an examination per vaginam; having in vain tried the "ballottement," and when an examination of the abdomen has led to no satisfactory conclusion, auscultation alone remains to resolve the often perplexing problem of the existence or the non-existence of pregnancy; and to this somewhat novel and very interesting topic an ela-

borate consideration is given.

When Laennec had proved that we might see with the ear what was going on in the chest, it was natural to hope that auscultation would soon be applied to other parts of the body, for the purpose of determining the existence of functional derangement or structural disease. MM. Mayor* and Foderé† had already hinted at the subject, in reference to the detection of pregnancy, when M. de Kergaradect declared that uterogestation might be positively determined by auscultation. Two kinds of "bruits" are to be heard in the uterus of a pregnant woman: the one, analogous to, although "plus brusque" and shorter, than that of a feeble respiration, or "bruit placentaire;" the other similar to that of the ticking of a watch surrounded by folds of linen, or "bruit du cœur. The first, called by Kergaradec "placental soufflet," is synchronous with the maternal pulsations. M. de K. believes that this soufflet corresponds to the insertion of the placenta, and that it is produced by the passage of the uterine blood into the vessels of the ovum; in most cases it is confessed that a well practised ear is required to detect it at all; and hence many have denied its existence.

M. Velpeau has tried in vain to detect this placental soufflet in very many cases. On the contrary, in others he made it out very distinctly. It was powerful enough in three women, who were delivered at the Hôpital de Perfectionnement, and in two others who served for the "exercises pratiques" at his lectures, for the medical students and female midwifery pupils to hear it very easily and without any previous practice.

We must refer to the work for the detailed account of the conflicting opinions that are maintained respecting the cause of the placental soufflet. The impression upon our own minds, from the few trials we have made, is that the sound

Bibl. de Geneve, &c. tom. ix. p. 249.

[†] Dictionnaire des Sciences Medicales.

[‡] Auscultation applié à l'Étude de la Grossesse, &c. Paris, 1822.

proceeds from the iliac vessels. The subject is important, and well worthy further investigations; for, if the present sources of doubt be removed, the existence of the placental soufflet will enable us at once to detect pregnancy, and to determine that the fœtus in utero is living.* This will be a great practical step. The "bruit du cœur" cannot be confounded with any other. We may count the fætal pulsations from 120 to 150 in a minute, whilst the pulse of the mother beats only sixty or seventy in the same space of time. These pulsations are stronger as the fœtus is more developed, and are hardly perceptible until after the fourth month. M. Velpeau has rarely failed to distinguish the action of the fœtal heart when he has been enabled to make a careful examination. We have several times made the attempt, and have only twice succeeded, and in these instances we could distinctly count the fœtal pulse at about 130; the mother's pulse beating seventy-five. In both cases the women were nearly five months advanced in pregnancy. We confess, however, that our ears are not well tuned to stethoscopic sounds, so that others must not be intimidated from our failure in general.

The nature of the "bruit du cœur" having been satisfactorily determined, it has not been the subject of controversy; its practical value, however, has been much discussed, and differently estimated. The fair resumé appears to be that stated by M. Velpeau. The sound of the heart is a certain sign of pregnancy and of the life of the fœtus. Its power indicates, in general, the vigour and state of health of the infant. Such evidence being of great value in many cases, when accidents occur during parturition, and serious operations are required, and when our practice might be greatly modified by knowing whether the child were living or dead; a very difficult point to determine, as every authority confesses. simultaneous existence of the beating of the heart at two opposite points of the abdomen would prove that the uterus contained two fœtus; and, if it were distinguished in a case where the uterus was but little developed, a strong suspicion would arise that it was one of extra-uterine fœtation. the absence of the "bruit du cœur," like that of the active or passive movements of the fœtus, is not a demonstrative proof that pregnancy does not exist, or that the child is not alive. This, we doubt not, is the fair and unexaggerated result of what is at present known upon'the subject. M. Hohl+

† De l'Exploration en Accouchement. 1re Part : Auscultat. Halle, 1833.

[•] M. Velpeau refers frequently to Dr. Kennedy's paper "on the Placental Soufflet," of which a full abstract will be found in the Number of the London Medical and Physical Journal for April 1831.—Rev.

would carry our confidence much farther. His opinions are stated by M. Velpeau, with, we think, a very proper doubt as

to their solidity.

The chapter on Extra-uterine Fœtation we pass over, with the single remark that, in nearly all such instances, great doubts must exist as to the nature of the case. We have in our possession a preparation of extra-uterine fœtation, (ova-rian, we believe; M. Velpeau doubts the possibility of such a fact,) at about the third month of gestation. The lady, the wife of a well-known and highly respected physician, did not, of course, want the best medical advice. She died after some weeks' suffering, but the real nature of the case was not discovered until a post-mortem examination was made.

Fausse Grossesse, (Apparent Pregnancy.) To all experienced practitioners the fact is well known, that various maladies may give rise to symptoms that very closely simulate pregnancy. We have seen three or four remarkable cases of this kind. Apparent pregnancy may depend upon retention of the menses; irregular menstruation; disease of the uterus, Fallopian tubes, ovaria, or any of the abdominal or pelvic viscera; and, lastly, and most frequently, we believe, from a condition which it is impossible to define, and which comprises cases of imaginary, hysterical, and nervous pregnancy. In the great majority of these cases, an examination per vaginam would remove all doubt; but, as M. Velpeau correctly states, such patients are usually so firmly persuaded that they are pregnant, that they will not submit to any examination.

"The treatment of apparent pregnancy must necessarily vary with the cause that gives rise to it; I have merely to observe, that, in hysterical, nervous, or imaginary pregnancy, where there is no appreciable lesion of any part, warm baths frequently repeated are much to be relied on. I must also add, that generally no means we can adopt will succeed in preventing the symptoms simulating pregnancy from running on through the whole period of natural pregnancy, and that before they completely disappear, some of the signs of real

labour frequently occur."

We have seen several cases of this fancied pregnancy, but we have yet to be convinced that a mimic labour "frequently" terminates the farce; it does so occasionally, but very rarely. On the other hand, if various maladies give rise to the suspicion of pregnancy, real pregnancy often assumes the appearance of organic disease. Our own and foreign journals contain abundant and many very amusing facts of a chopping boy making his appearance, as much to the annoyance of the deceived doctor as the deceiving damsel. For example,

(quoting M. Velpeau), a woman had been treated for some time for supposed hepatic disease, and her case was made the theme of several elaborate clinical lectures. She was suddenly delivered one morning, much to the astonishment of

the profession. The cure was perfect.

The two next questions discussed by the author, of the possibility of determining the sex of the child during pregnancy, and of begetting a male or female at will, we pass over, with but one remark, which is curious, at least. From extensive experiments made by M. Girou* upon animals, it appears that the more vigorous the male is at the moment of sexual intercourse, the greater the chance of the progeny being a male. In the human species it has been said, that, in those countries where polygamy is allowed, as in Persia and Turkey, more girls are born than boys. In Europe, where the laws limit the gentlemen more strictly, the contrary is well known to be the fact. In France the girls are to the boys as 15: 16.

As M. Velpeau has devoted another work+ to the Anatomy of the Ovum and Embryology, to which we may give a sepa-

rate review, we pass over these subjects at present.

From his own experience, as well as from the testimony of others, M. V. is convinced, as we are, that the fact of the occasional protraction of pregnancy beyond the ordinary period is undoubted and incontrovertible. He thinks further, that in the present state of our knowledge, we cannot positively limit the possible duration of utero-gestation; but upon what facts this *unlimited* concession of our deficiency rests, he does not inform us.

The fifth book of the first volume introduces us to the practical subject of *Parturition*; the first chapter is devoted to *Abortion*.

The frequency and causes of abortion are first considered. Among the various causes of abortion one has received more attention from our German and French brethren than from English practitioners, namely, diseases of the ovum. Morbid states of the ovum which destroy the embryo are extremely common, especially in the early months of pregnancy.

Since M. Velpeau has devoted a good deal of his attention to the subject of embryology, he has inspected more than two hundred ova before the second or third month of pregnancy: at least half of them were diseased. Such is the inference we

Revue Médicale, 1828; tom.iv. p. 545.

[†] Embryologie, ou Ovologie Humaine; fifteen plates. By Alf. A. L. N. Velpeau. 4to. 1834. A splendid and very interesting work.

should draw from our own specimens, as well as from the many preparations contained in our different museums. Among other points connected with the anatomy and physiology of the ovum upon which M. Velpeau particularly insists is the non-vascularity of the Chorion and Amnion.* did not expect therefore to find him assigning as among the ordinary causes of abortion, thickening, opacity, and the formation of adventitious membranes upon the chorion and amnion; for, granting that this is the fact, which we willingly do, the inference is clear that both these membranes are vascular.+ Morbid Anatomy, in truth, here teaches us that which the extreme delicacy of the parts would render very difficult to demonstrate while they were in a healthy condition. It is of importance that practitioners should bear in mind that uterine hemorrhage is not necessarily followed by abortion. Mauriceau, Boer, Puzos, &c. relate cases of severe hemorrhage, in which utero-gestation still went on to the full period. Under such circumstances abortion is greatly to be apprehended; but it is not inevitable. A knowledge of this fact will modify our practice. In many cases the fœtus dies long before it is expelled by nature from the uterus.

Speaking generally, abortion is more dangerous than labour. Some authors have denied this assertion of Hippocrates: it is however correct. Abortion is a disease. Labour is the termination of a natural function. The most formidable cases of abortion are those in which the ovum is expelled during the existence of some acute disease of the mother. ± Even if miscarriage takes place when the mother is nearly convalescent from acute disease, her life is in danger. M. Serres states that, in twenty cases of abortion when the women had small-pox, not one of them recovered. Exceptions of course arise; but we know, from practice as well as precept, that they are rare. Our very intelligent friend, Mr. Sweatman, lately attended a woman who was in daily expectation of being "put to bed." She was seized with shivering, fever, &c., and, about twenty-four hours after the occurrence of these symptoms, labour came on, and terminated without any adverse symptom. Two days after, she was covered with confluent smallpox, but she went through the disease very favorably. The child was weak and puny at birth. Variola appeared upon it on the third day, and it died in a

[·] P. 268, vol. i.

[†] We have a preparation of an abortion, in which the placenta is diseased. The chorion and amnion are both thickly covered with adventitious membranes firm shreds of coagulable lymph unite the two.—Rev.

[†] Maladies des Femmes Grosses, par Mauriceau, p. 166.

few hours. Our former teacher, Dr. Thynne, whose practical judgment was highly and deservedly respected, used to say, in his lectures, that "if a woman either miscarried or had premature labour from the influence of any acute disease, her life was always in great jeopardy."

Upon the treatment of abortion, M. Velpeau is very brief. He properly deprecates the indiscriminate use of the lancet.

On Labour in general. M. Velpeau considers at some length the essential and necessary causes of labour. It is now admitted that the fœtus is not an active agent at the time of labour. A dead child is expelled with the same facility as a living one. To A. Petit* M. Velpeau assigns the merit of having first proved that the efficient cause of the act of labour is essentially constituted by the contractions of the uterus, and partly by contractions of the abdominal and thoracic muscles. An observant practitioner needs no proof of this doctrine; but he who cannot read the book of nature will find a sure guide in M. Velpeau. In one case only can labour be regarded as a partly voluntary act. It is certain that a woman who "bears down," as it is termed, with all her force, who makes the most of her pains, however feeble they may be, will thus accelerate her delivery; and that another may more or less delay delivery, by voluntarily opposing muscular action as much as she can. For example: a woman was admitted for delivery at M. Baudelocque's theatre. Labour went on regularly, and the pupils assem-The dilatation of the cervix now slackened, and no progress was made during the whole night. The éleves were fatigued, and retired. The pains immediately returned, and dilatation again went on. The young men again entered; the phenomena of labour again ceased. Baudelocque, suspecting the cause, gave a hint to the students to retire, but to be at hand, and enter upon a given signal. The patient now began "to bear down," and the head of the child was quickly at the vulva. The spectators were once more brought to the scene of action, and the labour was speedily terminated; for it had now advanced too far to be suspended by any voluntary effort, or moral alarm of the woman. There is nothing at all extraordinary in this fact, but it conveys an important lesson, viz. that every circumstance should be avoided, during the act of labour, that is likely to annoy the patient. Such exceptions, however, do not disturb the general rule, that the will has no other influence upon the process of labour, but through the medium of the diaphragm

^{*} Recueil de Pièces sur les Naissances Tardives, p. 60. Paris, 1766.

and abdominal muscles. M. Velpeau does not venture, however, to declare absolutely, with M. Nægèlé,* that the uterine contractions, accompanied by severe pains, are en-

tirely beyond voluntary control.

We cannot stop to detail the many speculations that have been stated to explain the "cause determinante" of labour. M. Velpeau defines it to be "a tendency of the fibres of the body of the uterus to contract upon themselves. The opinions of Levret, Baudelocque, Desormeaux, &c. (p. 436,) upon which M. Velpeau's definition is founded, are physio-

logically curious, and very plausible.

The process of labour is divided into three periods: precursory signs, dilatation, expulsion. The special phenomena of labour, as uterine contraction, dilatation of the cervix, formation of the bag of waters, and the discharge of mucus, are described minutely, and in a very instructive manner. In "tocology," (to adopt M. V.'s nomenclature,) the word pain is synonymous with uterine contraction. But we must remember that this is but conventional language, employed by practitioners to render themselves intelligible to the lay multitude. Pain and uterine contraction are essentially dis-It is true that pains are connected with contractions of the uterus; that they arise, progress, decrease, and cease together; and that the energy of the one is usually in a direct ratio to the vehemence of the other: but it is also true that the contrary is sometimes the case. No labour can terminate without uterine contraction, but instances are on record in which the process has been completed without pain.+ We never saw a labour entirely without pain, but one lady, well known to the editor, whom we attended four times, had so little suffering, as to utter no expression or sound of complaint whatever, and she declared "that labour was nothing."

Eutocia, (Natural Labour.) An average, drawn from numerous private and public sources, leads M. Velpeau to the conclusion "that the active co-operation of the accoucheur is useful about once in fifty times." These calculations are liable to such numerous exceptions, as to be but of little if any real value. Judging from our own experience, we should say that, upon the average, the active "co-operation" of the practitioner is not nearly so often required.

M. Velpeau includes under the term natural labour pre-

Lehrbuch der Geburtshülfe, 1833, p. 125.
 † M. Jourdain, These, No. 214. Paris, 1813.

I Eυ, well, and τοκος, labour.

sentations of the head and face. Six varieties of head presentation are admitted, according to the arrangement of Baudelocque, viz. 1, occiput to the left acetabulum; 2, occiput to the right acetabulum; 3, occiput to the pubis; 4, forehead to the left acetabulum; 5, forehead to the right acetabulum; 6, forehead to the pubis. By Capuron and Maygrier, the third and sixth of these presentations are rejected, and we think with propriety. By all authorities they are admitted to be very rare; by many, they are denied ever to occur.

We would willingly follow M. Velpeau through the minute and very instructive detail he has given of the mechanism of each of these presentations. It far surpasses any description of the mechanism of natural labour which is to be found in any English writer, and the student who will sit down patiently, with a female pelvis and a fœtal head, and then follow the steps of nature so clearly described by the author, will in two hours rise from his task, with more fundamental knowledge of the curious process of labour than he could acquire by mere reading in as many months or years; if ever,

indeed, he would thus succeed in obtaining it at all.

Owing principally to the works of Boer and Madame La Chapelle, the doctrine which taught that face presentations were so formidable is now almost exploded, and by the best authorities it is now admitted that, in the majority of cases, such labours are nearly as easy and as natural as if the vertex presented. We perceive, by the by, that some of our London lecturers still remain of the old opinion; but it is clear, if the printed report of their lectures be correct, that they themselves have yet to receive a profitable lesson upon the subject; that, in fact, they mistake altogether the real mechanism of labour in face cases. M. Velpeau will teach them better, or Madame La Chapelle,* if they prefer female instruction.

In the ensuing chapter is described, with equal accuracy and minuteness, "presentations of the pelvis," comprehend-

ing the feet, knees, and breech.

We now arrive at the duties of the accoucheur in the lying-in room. That he should be correct in his diagnosis is as desirable for his own sake as his patient's. In the opinion of the public, nothing is so easy as to determine immediately whether a woman is in labour or not: the experienced practitioner knows better. That women are themselves frequently deceived, may be easily imagined. But "patients

^{*} Prat. des Accouch. tom. i. 3d Mémoire.-Rev.

have frequently been kept for several days confined to bed. even by practitioners, who have at last discovered that several weeks were yet to elapse before the period of pregnancy was complete. A young female, pregnant for the ninth time, felt some pain, and believed she was in labour. Several accoucheurs were called in succession: one felt the membranes protruding; another was quite sure the head was within the cervix; a third was equally certain that the cervix was quite obliterated; a fourth proposed the application of the forceps. On the fifteenth day my opinion was taken. and I found the cervix in the ordinary condition of the seventh There was an anterior obliquity of the uterus." M. Velpeau stated that a month would probably elapse before labour came on, and in fact it did not happen for two That several accoucheurs could be thus deceived is rather remarkable: but we know, from our own observation, that young practitioners not unfrequently fancy a woman in labour, when she is not, where there is great anterior obliquity of the uterus, and where, of course, the os uteri is thrown very far backwards. They feel the head of the child close to the symphysis pubis, with the uterus thinly expanded over it, and believe the neck is obliterated, when the unchanged os uteri is probably far back towards the sacrum, where they never search for it. By paying due attention to the observations of the author, such mistakes will be easily avoided.

M. Velpeau particularly calls the attention of young practitioners to one circumstance, which is calculated to deceive them, and which, he believes, is not sufficiently known.

"Modern accoucheurs have, with one accord, rejected as apocryphal the recorded cases which appear to prove that labour may commence, that the uterine contractions may be very evident, and that, after having existed for several hours, the labour may be suspended, and delivery not take place for a month or two afterwards. Such anomalous examples have usually been cited as proofs of protracted pregnancy, or of superfectation. It has been supposed that these fruitless efforts marked the natural term of gestation, and that the time that elapsed between their cessation and the occurrence of real labour was in addition to the ordinary Now, I am convinced that this imperfect labour, this 'faux travail,' as Levret* called it, is not a chimera. I was called, in March, 1824, to a lady, in Rue d'Orleans: she was in her second pregnancy, and had been suffering for four hours. Her pains were regular, but weak, with long intervals between them. The cervix was soft, and admitted three fingers; it was not com-

[·] Art des Accouchemens, p. 97.

pletely obliterated. The vertex had began to enter the cervix; and during the pains the membranes were in the vagina, and were smooth and tense; while, on the other hand, I felt the os and body of the uterus harden, and contract with a certain degree of energy. It was now ten o'clock at night. I stated that the labour would not terminate for some hours. I returned home, desiring to be sent for when the membranes ruptured. Not having been requested to attend during the next two days, I presumed some other practitioner had been consulted, and thought no more of the case. Six weeks afterwards I was again sent for, much to my surprise, I confess; for I presumed that delivery had long before taken place. But now the process continued, and the labour was concluded."

M. Velpeau refers to various authorities for nearly similar cases. We do not at all doubt the facts, but we may safely say that, when the process of labour has proceeded so far as mentioned by M. Velpeau, it is very rarely suspended so completely, and for so long a period. The suspension of labour for a few hours, without any obvious cause, even when the uterine action has been regular and powerful, is not very uncommon.

For the distinction of the various parts of the fœtus that

may present, we refer to the work.

Having established our diagnosis, another question immediately presents itself: how will the labour terminate? Will it be quick or slow? The young practitioner must remember to be very guarded in his prognosis. The duration of labour is so variable, and depends on so many circumstances, which cannot be anticipated, that the most experienced are frequently mistaken in their opinions upon this subject. Nothing but practice can enable a young hand quietly to avoid, and dexterously to parry, the pressing solicitations of his patient to tell her "when it will be over." He must make no positive promises as to duration, but will, of course, console his patient, as soon as he can, by the inspiriting news that "every thing is right:" in other words, that the presentation is natural.

Our readers must look to the work for two or three instructive pages, in which a variety of circumstances are mentioned that will more or less modify the prognosis. We must also omit any formal notice of the general management of

the lying-in patient.

We are quite certain that many practitioners give themselves a great deal of unnecessary trouble, and their patients much annoyance, at least, to no purpose whatever, by what is called "supporting the perineum." We give therefore the following short quotation from M. Velpeau.

"The pressure that is employed should be from behind forwards, —from the coccyx towards the pudendum, and not in a lateral direction. The occiput should be made to rise towards the pubis, and not be prevented from descending. It is, besides, only at the moment when the head begins to distend the vulva with some force that we are called upon to interfere at all: before this period the operation can be of no service, and the accoucheur would merely show that he did not comprehend what he was doing."

It is with some hesitation we state our own opinion upon the subject, but the accuracy of it is confirmed by ample and personal experience. We believe that rupture of the perineum is just as effectually, and more easily, guarded against, by merely preventing the sudden expulsion of the head or shoulders, by pressing upon the part firmly as it descends, with the expanded fingers, as by the ordinary mode of practice. We doubt the accuracy of Kilian's opinion, that the perineum is in more danger from the shoulders than the head of the child.*

Under the head of "Soins relatifs au Fœtus," some judicious hints are given as to when, and how far we are justified in attempting to change the posterior occipital presentations into a more favourable position; the management of face cases, and presentation of the inferior extremities, when assistance is required, are also here mentioned. The treatment of difficult or irregular labour, with a detailed account of the various causes of lingering labour, are next discussed. We must confine ourselves to a few brief comments upon these topics.

M. Velpeau speaks highly of the application of belladonna in cases of spasmodic contractions of the cervix. This remedy was frequently used by La Chapelle, often with benefit, and never with injury, although its use has been proscribed by Kilian. Upon referring to Kilian, it appears that he infers the same permanent paralytic effect might be produced upon the cervix uteri, as upon the iris, from the belladonna; and that the risk of dangerous hemorrhage, &c. would be incurred. His speculative opinion cannot be admitted, if practical experience supports the favourable opinions of the author, Chaussier, and Conquest,

[•] Die Schultern sind für den Damm gewiss bei weitem geführlicher als der Kopf, und wir sind fest überzeugt, das die meisten Dammrisse, welche beobachtet werden, beim Hindurchgange der Schultern enstanden sind und vielleicht verhütet worden wären, wenn, was aber gewöhnlich geschieht, die Dammunterstützung bei der Geburt der Schultern nicht vernachlässigt gewesen wäre. Die Operative Geburtshülfe, von H. F. Kilian. Bonn, 1834. Band i. p. 171.—Rev.

[†] Loc. cit. p. 249 .- REV.

as to the good effects and safety of the treatment. Velpeau says, that the rapidity of its action in dilating the cervix is frequently quite surprising. Such cases are too perplexing to justify us in hastily discarding any addition to our means.

In many works on Midwifery, the practitioner is too unlimitedly restricted from ever rupturing the membranes. The error is on the safe side, we confess. M. Velpeau gives many very good practical hints upon the subject. He has employed the ergot of rye more than thirty times. "In every case," he says, "its action has appeared to me evident and incontestable." Our own experience is more limited: the result of it exactly the reverse of M. Velpeau's; but still we doubt not its occasional efficacy, any more than we doubt the utter absurdity of the wild eulogies bestowed upon it by Mr. Mitchell in his essay on the subject. Abdominal compression by means of a bandage, in some cases of

lingering labour, is strongly recommended.

Dystocia,* (Difficult labour.) Hemorrhage and Puerperal Convulsions are the two first subjects treated of under this Important as these subjects are, we have only space to say that they are well and practically treated by M. Velpeau; originality can hardly be looked for upon such wellconsidered themes. He has published a distinct essay on Puerperal Convulsions, which we shall hereafter notice; but we must just advert to one error he has committed, especially as the authority of Dr. Merriman, upon all obstetrical subjects, must greatly influence the opinions of others. Velpeau states (p. 121, vol. 2,) that forty-eight cases of convulsions occurred to Dr. Merriman in two thousand labours; whereas the fact is, that in 2947 cases, attended by Dr. M. himself, only five were complicated with convulsions. remaining forty-three cases mentioned by Dr. Merriman+ were consultation cases, and consequently no average of the ordinary frequency of the disease could be drawn from them. Upon the same subject also M. Velpeau must, we presume, have fallen into a similar mistake with respect to M. Gehler, whose statement is thus quoted. "Gehler! dit que, sur plus de 300 accouchemens laborieux, il n'en a vu que 22 cas" of convulsions. In upwards of 23 years we have ourselves attended more than 2000 cases of labour, and a great majority of them in low life. Three of these cases only were compli-

From δυς, badly, and τοκος, labour.

[†] On Difficult Parturition, p. 147. See also a letter, in correction of M. Velpeau's mistake, from Dr. Merriman: Edinburgh Medical and Surgical Journal, January 1835, p. 240.—Rev.

† Bibl. de Chir. du Nord, tom. i. p. 346, 347.

cated with convulsions. The women all recovered. The children were born dead. The following subjects are treated of in succession as causes of accidental or essential Dystocia: Prolapsus of the Funis; Shortness of the Funis; Aneurism; Asthma; Hydrothorax, &c.; Hernia; Syncope; Ruptures of the Uterus; Tumours in the Pelvis; Calculi in the Bladder; Malformation of the Vagina; Tumours of the Vulva; Inversion of the Vagina; Disease of the Cervix; Displacement of the Uterus; Obliquities of the Uterus. We must offer a comment or two upon the latter subject.

The anterior obliquity of the uterus is perhaps the only one that requires any particular attention during labour. We have already referred to it as a not unfrequent source of error to the young practitioner. M. Velpeau states that, whenever he has met with this very common deviation from the ordinary position of the uterus, the labour at first makes but little progress, but subsequently becomes powerful, and

requires no particular assistance.

"The most distinguished writers, and Baudelocque himself, have advised us, for the purpose of remedying this inconvenience, to hook one or two fingers into the os uteri, and to depress the cervix towards the centre of the pelvis, between the pains, and to retain it in that position during the contractions; or to perform the Cæsarian operation through the vagina, the only means of preventing gangrene or rupture of the uterus, &c. Judging from my own experience, I am inclined to think with Smellie, * who maintains that the deviations of the cervix backwards require neither turning nor artificial dilatations, recommended by Deventer; that, in such cases, artificial means are rarely necessary; and that, in more than one instance, the practitioner has injured either the mother or child by his impatience. For a long time I was led by the doctrines of the books. I drew upon the cervix, and did all I could to bring it into the centre of the excavation. I succeeded, it is true; but very frequently remained many hours with the patient. In one case I was obliged to have a substitute, a pupil, who neglected the instructions I had given him. After an absence of three hours, I found the cervix completely dilated, the membranes ruptured, and the head low down in the pelvis. From this time I have done nothing in such cases, and nature has always restored the parts to a natural position."

M. Velpeau does not assert that nature never requires to be assisted in these cases of anterior obliquity of the uterus, but that the exceptions are few in which the practitioner is justified in interfering. We are convinced that M. V. takes a correct view of the subject, and we cannot refrain from de-

Midwifery, vol. i.

precating the advice of Dewees* and others to introduce the hand, hook the os uteri upon the finger, and draw it towards the centre of the inferior strait, &c. We, like M. Velpeau, have also given several fair trials to this mode of practice. and also, like him, our experience has taught us that it is unnecessary in the great majority of the cases referred to. It is obvious that if the practitioner always has recourse to the manual interference advised by Dewees, in cases of anterior obliquity of the uterus, he never can positively determine how much he has done, or how much nature herself has done in hastening and terminating delivery. Let him then trust to nature in a few such cases, or, at least, be satisfied with placing the patient on her back, and supporting the fundus uteri with a towel, and she will teach him the same lesson that she has taught M. Velpeau and ourselves, that she generally requires no aid.

Labour may also be rendered difficult from causes connected with the fœtus: its volume may be excessive, from malformation, monstrosity, or disease; and these subjects are considered at some length by the author. Preternatural pre-

sentations are often also the cause of difficult labour.

M. Velpeau doubts that the trunk of the feetal body ever presents in a transverse position at the brim of the pelvis, either before or after the rupture of the membranes, if the child is at the full period and full grown. "That such positions may exist, the horizontal diameter of the uterus must be greater than the perpendicular diameter; and, granting that this can be the case before the beginning of labour, can we conceive that such a disposition could be maintained during the contractions of the uterus?" Mauriceau, Deventer, Smellie, &c. have given plates of such presentations, but none of them state they are taken from nature; and M. Velpeau believes "qu'ils sont tous d'imagination." We believe he is right, from our own observation, as well as from the immense number of labours that have been reported by foreign and English authorities, in which no single instance of such presentations occurred; e.g. La Chapelle mentions 40,000; Merriman, 20,000; Riecke, 220,000! &c. &c.

After having given his opinions of the various modes in which an evolution of the child, or a change in its position, is sometimes spontaneously effected, in utero, M. Velpeau refers to many authorities, and briefly sketches from them 137 cases of the kind; 125 of the children were born dead. The following are his practical conclusions as to presentations of

^{*} System of Midwifery, p. 89 et seq.-Rev.

the trunk: 1st. That all positions of the trunk, which cannot properly be referred to presentations of the shoulder, back, or the anterior part of the thorax, may be classed as inclined positions of the breech or head. 2d. That presentations of the shoulder are, in fact, the only ones which demand particular attention, inasmuch as nature converts all others into shoulder presentations. 3d. That the child is never placed in the uterus in a really transverse position, and that we may occasionally expect that the most disadvantageous positions will be spontaneously converted into favourable ones. 4. That there are cases, and numerous ones too, in which artificial assistance is not necessary, although the fœtus presents by neither extremity of its long diameter.

We believe these remarks are substantially correct, and they are valuable to the student, inasmuch as they relieve him from the necessity of studying a variety of different positions of the trunk, which he will find in books, and which he may make with his leathern fœtus and phantom, as those who have described them have probably done, but which he will not

find in practice.*

Occasional exceptions to M. Velpeau's dicta, it is true, may arise; for nature, as we all know, refuses to be confined by any of our abstract and scholastic arrangements.

"The indications to be fulfilled in unfavorable positions necessarily vary, according to a variety of circumstances. If the liq. amnii has not escaped, there is nothing to do; we must wait for the dilatation of the cervix. If there is obliquity of the uterus, we must try to restore it to its natural position. If the head projects over the brim of the pelvis, we must endeavour to press it into the When the fœtus is so moveable, that the head, the shoulder, or some other part, presents alternately at the orifice, it is proper to rupture the membranes, without waiting long, at the moment we are certain the head is presenting at the inlet. But, if the cervix is sufficiently dilated, if the membranes have ruptured, or are on the point of rupturing, it is necessary to determine, without delay, if it be advisable or not to introduce the hand into the uterus. We may dispense with this operation, says Denman, in numerous cases, inasmuch as the uterus will often produce spontaneous evolution; and, if the child presents double, its expulsion would not even then be quite impossible. In every case, French accoucheurs contend, on the contrary, that we should act immediately; for they

[&]quot;" Man schrieb nehmlich damals und grossentheils thut man es noch jetzt, so viele falschen Kindeslagen in ein Handbuch auf, als der Autor in dem vor ihm stehenden Phantome nur immer machen konnte. Solche Phantom-kindeslagen sind aber keine Naturkindeslagen, wie sie uns das lebende Weib zur Beobachtung darbietet!" Kilian, 363. Die Operative Geburtshülfe. Bonn, 1834.—Rev.

argue, that the longer we wait, the more the uterus contracts, and the more difficult it is to introduce the hand, and perform the operation of turning." (P. 275.)

M. Velpeau is quite in error as to Dr. Denman's opinion upon the subject of Spontaneous Evolution. The first communications upon this point which Denman published were two papers in 1785.* In the first he says, "with respect to the benefit we in practice may derive from the knowledge of the fact, (spontaneous evolution,) I may be permitted to observe, that the custom of turning and delivery by the feet in presentations of the arm will remain necessary and proper in all cases in which the operation can be performed with safety to the mother." In the second paper Dr. D. says,+ "The fact of spontaneous evolution being ascertained, I must leave it to other practitioners to determine upon the particular cases in which this event may be reasonably expected and properly waited for." In the first edition of his Midwifery published in 1795, and in the seventh edition published by Dr. Waller, Dr. Denman again says, "Yet the knowledge of this fact (spontaneous evolution,) however unquestionably proved, does not free us from the necessity and propriety of turning children presenting with the superior extremities, in every case in which that operation can be performed with safety to the mother, or give us a better chance of saving the child." Further, Dr. Denman says, and truly too, that the knowledge of the occasional occurrence of spontaneous evolution will be a relief to the practitioner's mind, and prevent him from having recourse to hazardous operations, in those cases where turning either cannot be effected without great danger to the patient, or where it is altogether impracticable.

Now in all this we see the caution which characterized every statement of our venerated authority—Denman. No man was less likely than he was to fall into the mischievous error of jumping to hasty conclusions, from imperfect premises. Dr. Walshman declared at the Medical Society of London,‡ "that Denman had done more harm by his article on Spontaneous Evolution, than he had done good by all the rest of his writings." In defence of Denman we will no further retaliate upon Dr. Walshman, than by asserting that, whatever arose of "harm" from his papers on Spontaneous Evolution, must be attributed to the blunderers who mistook his meaning, or to those vacillating practitioners

^{*} London Medical Journal, vol. v. By Symons.—Rev. † 1bid. ‡ Lancet, 1827, vol. ii., p. 88.

who, glad to have some excuse for escaping from an operation which they shrunk at, chose to do nothing, when attention to Denman would have taught them to act with promptitude.

We presume, for he gives no reference to any work of Dr. Denman's, that M. Velpeau quotes him at second-hand, and it is passing strange to us that many of our own writers have fallen into the same mistake. Dr. Blundell, for example,* says, "Observing these 'spontaneous evolutions,' as he significantly called them, and unwilling to interfere without need, Dr. Denman advised that, in arm presentations, we should always! confide the delivery to the natural efforts, abstaining from the introduction of the hand into the uterus." Dr. Gooch is reported to say that Denman published his cases of spontaneous evolution, "together with the inference that arm presentations may be entirely! left to nature: this conclusion was, however, invalidated by his subsequent experience." How these, we are sure, involuntary misstatements of Dr. Denman's opinions can have arisen, we are at a loss to determine. M. Velpeau appears, too, to assume that the practice of turning, as soon as we can with safety to the mother, is peculiar to the French school. He is quite mistaken: the doctrine he advocates is taught in every English school, and acted upon by every well-informed English practitioner; and by a recent and very able German writer, we also find it insisted upon.‡

For the detailed consideration of the various circumstances which demand, and the mode of performing the operation of. turning we must refer to the work. M. Velpeau is one of the few modern authorities who contends for the propriety of frequently endeavouring to convert preternatural presentations into presentations of the head by "la version céphalique."

We must now be very brief in our arguments and extracts. Our opinion is that this operation must always be very difficult, frequently impossible, and rarely justifiable. \ We fully

warten und darüber die unschätzbare Zeit und den rechten Augenblick zur Wendung selbst versäumen." Die Operative Geburtshülfe, band i. 365. Von Dr. H. F. Kilian. Bonn, 1834 .- REV.

§ Vide Pratique des Accouchemens, par Madame La Chapelle; tom. i. p. 79.

"The chance of success in this way is very trifling." Merriman on Difficult Parturition, fourth Edition, p. 82 .- Rev.

The Principles and Practice of Obstetricy, p. 383; edited by Dr. Castle. † Practical Compendium of Midwifery, p. 238: from Dr. Gooch's Lectures. ByGeorge Skinner.

t "Nicht umhin aber können wir, unsere weniger erfahrenen Geburtshelfer alles Ernstes darauf aufmerksam zu machen, dass es zu den unverantwortlichsten Thorheiten gehören würde, wollte irgend einer unter ihnen in einem schwierigen Falle als müssiger Zuschauer auf eine Selbstwendung des Kindes

agree with Burns,* who says, in reference to the old practice of endeavouring to remove the presentation, and to bring the head to the os uteri, (which, by the way, was followed from the time of Hippocrates to Ambrose Paré,) " there may however be cases, where it would not only be safe, but also more proper, to resort to the old practice, although as a general rule it ought to be abandoned. For example, it sometimes happens that when the hand or shoulder presents, the head rests on the edge of the brim of the pelvis, and, if we return the presenting part, the uterus is so stimulated to a vigorous action, by the introduction of the hand, that the head is thrown off the brim of the pelvis, and descends as in a natural presentation.+ Dr. Gooch thus succeeded many times in converting an arm into a head presentation. Three cases of this kind have occurred to ourselves. But here the interference does not deserve the title of "version céphalique." We find from M. Velpeau himself, that his countrymen coincide with us. "In spite of what some moderns have said, nobody at Paris has thought of putting in practice la version céphalique. Madame La Chapelle goes so far as to deny the possibility of the operation," p. 289. Joerg, of Leipzig, is a great authority, and therefore we are tenacious of what he says. M. Velpeau thus quotes his opinion from Burns. † "M. Joerg n'a pas craint de poser en regle que dans la version, il faut ramener la tête, &c." p. 291. Now the expression used by Burns to convey Joerg's opinion is "that he admits the propriety of bringing down the head, &c." We are not hypercritical, we hope, when we submit to M. Velpeau that he has translated the passage too strongly on his side of the question. Barely "to admit the propriety" of a practice is not equivalent to "laying it down as a rule." Wigand states that the head may often be placed at the brim of the pelvis. when the presentation is preternatural, without introducing the hand at all; by acting upon the uterus through the abdominal parietes, and placing the patient at the same time in an appropriate position. Velpeau has twice adopted this plan with success before the rupture of the membranes.

The chapter on the Forceps is short, but rich in practical instruction. M. Velpeau confines the use of the instrument to the head, in common with most modern authorities. He employs Levret's instrument, with a slight modification. Of the straight forceps, which we hold to be preferable to the curved in the great majority of cases, especially for young

Principles of Midwifery, p. 381, eighth Edition, 1832 Vide Gooch's Compendium of Midwifery, p. 237.

[#] Midwifery, p. 384, (note;) eighth Edition.

practitioners, little or nothing is said: it is rarely, if ever, we believe, used in France. Notwithstanding what M. Velpeau says, we remain extremely sceptical (we must not use a stronger term,) as to the ease or safety with which the forceps can be applied above the brim of the pelvis; and we strongly urge the inexperienced practitioner, at least, not to trifle with his patient's life, by attempting to use the instrument in such cases. We oppose to M. Velpeau's opinions those of a distinguished French professor, Capuron,* who says, "Nous sommes presque tentés de douter qu'on ait jamais réussi, à moins que la tête n'eût commencé de s'engager;" and Madame La Chapelle's, who says, "Mais lorsque rien n'est engagé dans l'excavation l'application devient très difficile et souvent dangereuse."+ Kilian also thus condemns the practice, t "Above all, the accoucheur must regard it as his strict duty not to think of the use of the forceps, until the head is firmly fixed in the brim of the pelvis." M. Velpeau may think Kilian's note a little uncharitable. We give it without meaning to insinuate, in the most distant manner, that he need wince at the German professor's severity; and with the free confession that it will apply in England as well as in France. Burns says, "When it (the head,) is altogether above the brim, or only a small part, after many pains, has entered, the forceps cannot be used." Blundell's name is frequently quoted: it deservedly carries weight; but he speaks very indefinitely upon the subject. Thus, " 'The cases, of all others the most frequently requiring the long forceps, consist of those laborious labours in which the child's head is detained at the brim of the pelvis."

We feel deeply interested upon this subject, and regret that we cannot more fully discuss it. We vouch for the truth of the following statement, although we are not at liberty to mention names. A practitioner of distinction and great experience employed the long forceps in this country in twelve cases. In some the head was above the brim; in some it had

[·] Cours d'Accouchemens, p. 561.-Rev.

[†] Op. cit. tom. i. p. 73 .- Rev.

[‡] Op. cit. p. 607 .- REV.

^{§ &}quot;We cannot conquer the belief that, in a number of the cases, particularly of the practitioners in France, in which the forceps have been said to be applied above the brim of the pelvis, there has been some delusion, (auf Täuschung beruht;) for it is not every applier of the forceps who can determine whether the head is within or above the brim of the pelvis. Practitioners have there very commonly, partly from error, and partly from vanity, represented cases in which the head was high up in the pelvis, to be instances of the head above the brim." Operative Geburtshülfe, p. 607.—Rev.

[|] Midwifery, eighth Edition, p. 454.—Rev.

[¶] Op. cit. p. 502.—Rev.

partly entered. In every case the child was born dead. Four of the women died, and every one of them suffered severely; some from inflammation, others from laceration of the soft parts. On the other hand, it is certain that the ordinary doctrine of English teachers and English writers, of confining the application of the forceps to cases where the head is low enough in the pelvis for the ear to be felt, limits the use of the instrument within too narrow bounds; but we think that a young practitioner should confine himself for some time to this rule, although we deprecate it as the guide for him whom experience has rendered dexterous.

The use of the Lever; Artificial Labour; Division of the Symphysis Pubis; the Cæsarian operation; Craniotomy; and the Natural Phenomena which follow the Expulsion of the Fœtus, are the next subjects considered; but of which

we can only enumerate the titles.

The work concludes with a brief sketch of the principal diseases to which newborn children and lying-in women are liable.

Many pages of interesting matter we thus pass over, but once more we must plead "our limits," and close our notice of a work which we have perused with much attention, as a duty to our readers; and with much attention also, from the great pleasure and information we have derived from it ourselves. It is indeed a model of industry, and must be of immense value to every one who wishes to become acquainted with the erudition and the practice of midwifery, from the earliest times up to the present day. We cannot conscientiously say it is a book we should put into the hand of a tyro in obstetrical studies. It is above him; it is too profuse in references to various authorities, ancient as well as modern, for his purpose, who requires rather a succinct statement of practical facts, than an elaborate survey of all that has been said. In making this remark, we are far from meaning to undervalue the utility of the labour M. Velpeau has bestowed in informing us of the errors of our predecessors, as well as the improvements of our contemporaries. To know even the errors of those who have preceded us is by no means a useless acquisition: they should be remembered, as the pilot bears in mind the shipwrecks of those who have navigated before him, that he may himself steer a safer course. That other editions of M. Velpeau's work will be called for, we have no doubt; and we beg to suggest, that in one respect there is room for improvement: not only the names of the authors referred to should be given, but the editions and pages of the works which are quoted should be stated.

The plates are very neatly executed, and the subjects they depict physiologically interesting and practically useful: they comprise illustrations of the anatomy of the pelvis and female organs: anatomy of the ovum; various positions of the fœtus;

application of instruments, &c.

M. Velpeau will, we are sure, forgive us if we indulge in a smile at one of his arguments. In speaking of the period when the embryo first becomes visible in the uterus, (the mystery which so many have in vain endeavoured to unravel.) he rejects as fabulous or fanciful the well-known case of Sir Everard Home and M. Bauer,* which, to his astonishment, created a great sensation in the scientific world of London. We admit his doubts; but then we doubt, in turn, the value of the fact he himself adduces to fill up the physiological hiatus he laments.

M. Velpeau has had an opportunity of examining three early ova. He considers "the third as the most precious that has yet been met with. It compels us to admit that the embryo exists in ovula of ten days, and perhaps before: here is the history. A sage-femme, who attended my lectures. was at the last day of her menstrual discharge, when her husband returned from Rouen, where he had sojourned for Les approches conjugales did not take place till the following day, and on the thirteenth day the lady, who was already the mother of six children, miscarried. The ovulum, which she immediately sent to me, might indeed be less, but could not, as we perceive, be more than twelve days old. It is the only case within my knowledge in which the age of the ovulum can be so positively determined. The embryo was here very distinct, as well as the vesicles and all the mem-The funis itself already existed, and the form of the little embryonic body left no room for mistake."

Now we really perceive no compulsion of belief in this case. It is evident that the lady had more physiological zeal than female delicacy, who could instruct M. Velpeau as to the exact time "les approches conjugales eurent lieu," &c. Every sage femme is not necessarily a femme sage, and it is unquestionably possible that the ovulum might have been more than twelve days old, in spite of the flow of the catamenia immediately preceding. We are much mistaken if M. Velpeau himself, upon reflection, will not agree with us, that

Philosophical Transactions, 1817, p. 252.
 † We quote from M. Velpeau's "Embryologie," p. 51, Brussells edition.
 The "cas précieux" is more briefly mentioned in the Traité des Accouchemens.

a still more precious case must be placed on record, before we can be satisfied

"How the dim speck of entity began T'extend its recent form, and stretch to man."

Aufsatze und Abhandlungen aus dem Gebiete der Medicin, Chirurgie, und Staatsarzneikunde. Von Dr. Joh. Nep. Rust. Erster Band. Mit drei lithographirten Tafeln.—Berlin, 1834.

Essays and Dissertations on Points of Medicine, Surgery, and State Medicine. By Dr. Rust. Volume the First. With three Lithographic Plates.—Berlin, 1834. 8vo. pp. 475.

It is not an uncommon mistake, we believe, to imagine that the medical writers of Germany are so strongly tinged with the idealism which characterizes a large portion of their general literature, that a sober Briton might almost as well read Kant or Fichte, as Hufeland or Jörg; and many persons, who possess every qualification for judging of the German doctors, save the having perused their works, give very broad hints that it is impossible to understand our Teutonic brethren, and that it would be useless, could it be done. We trust that the analyses of German books which we have given from time to time may have served to disabuse many of this unwholesome prejudice, by showing them that Beck and Kramer, and Moritz Strahl, and Hohl, are as plain and sensible as if they were doing a large practice in the cities of London and Westminster.

The work of which the first volume is before us, is another one to be added to the praiseworthy list: it is the production of one of the most distinguished practitioners in Germany, who, having now arrived at the sixtieth year of his honourable and well-spent life, thinks it better to collect his choicest essays into one harmonious whole, than to leave the task to tardy, and perhaps ill-judging executors.

The present volume contains the commencement of an account of Dr. Rust's practice, when surgeon to the Vienna Hospital, from November 1, 1810, to May 31, 1815; a period of four years and a half, during which he treated 3889 cases. At the end of the volume are three essays: 1, on magnetism, as it was carried on at Vienna; 2, on the influence of diet and regimen on the sick; 3, on clinical instruction.

It would be vain to attempt an analysis of so condensed a book as Dr. Rust's, forming in fact the first part of a system of surgery derived from actual practice, and we must therefore content ourselves with giving a few of the more interesting passages, and referring our readers to the work itself for further instruction.

The following observations on the use of plasters are remarkably judicious:

"This remedy is far too much neglected in modern surgery, which more frequently employs inunctions, which in many cases are of inferior efficacy. A plaster is a powerful remedy, and yet its healing powers are usually better known to old women and quacks than to physicians. This superiority to inunction partly depends on the plaster being a more permanent application; but there are other circumstances on the same side of the question to be taken into account, provided the plaster be properly applied. The fault, however, is often committed of judging of its powers as a remedy from the materials of which it is composed; and if these powers do not agree with the principles laid down by writers on the Materia Medica, the remedy is rejected as inefficacious, without considering that here the form in which the remedy is applied produces the effect rather than the medicinal substance, and that, through the various additions which the physician thinks himself obliged to make to the ordinary plaster mass, it ceases in fact to

act as a plaster.

"The essential effect of a plaster is derived from its acting as a cover through which perspiration cannot pass; and thus it causes a continual irritation of the skin, while it protects the diseased part from all injurious external impressions. It is through these properties alone that it becomes an important remedy, and the better it is adapted to answer these views, the more efficacious it is usually found to be. If then a plaster is to act, it must be prepared of a strongly adhesive, and not easily penetrable or soluble mass; it must be spread upon thick linen, or, what is better, upon thin leather; and it must not be too small, but, on the contrary, be larger by the breadth of a finger than the diseased part which it is to protect; nor is it to be changed without necessity, but must rather remain till it comes off spontaneously. It is not the medicinal substance of which the plaster is composed, but the equable temperature in which the morbid part is kept, the animal vapour which collects under the impenetrable covering, continually secreted and again absorbed, and the permanent stimulus to the skin, exciting not merely the diseased, but also the neighbouring healthy vessels, into constant action, which produce those beneficial consequences, and particularly those resolvent and dissolvent powers whose effects we so frequently have the opportunity of observing after the application of plasters. Hence it appears why it is exactly those pharmaceutical combinations, (particularly the herb-plasters,) to which, according to the laws of the Materia Medica, the greatest discutient virtue is ascribed, that have this virtue the least, and therefore the physician who, in pursuance of his theories, mixes conium, melilotum, &c. with the ordinary plaster mass, is disappointed in his expectations; for these remedies, when externally applied, have nothing medicinal but their bad smell, and destroy the adhesiveness of the plaster, on which its other qualities depend. And hence, too, it appears why any domestic plaster, made of resin and other adhesive substances, will often remove a swelling in a short time, on which ointments, and liniments, and plasters enriched with vegetable and mineral substances, have been exhausted in vain.

"In obedience to this conviction, the fruit of experience, I have for more than twenty-five years used only the following plasters: the gummy diachylon, the common mercurial plaster, or the one compounded with camphor and opium, and the ammoniac plaster prepared with vinegar; and I can state, that, with nothing but these applied as directed above, I have resolved and healed indurations in membranous, glandular, and bony structures, which had

obstinately resisted all other remedies." (P. 28-31.)

Thirty-four cases of burns occurred; twenty-eight of the patients were discharged cured; one, who had been burnt with gunpowder, became incurably blind, and was transferred to the workhouse (Versorgungshaus); four died, and one remained under treatment. Dr. Rust ascribes the fatal termination in cases of burns to a loss of the function of the skin, and would add the skin-death, to the heart-death, brain-death, and lung-death mentioned by Bichat. His treatment is that of most sensible practitioners. In ordinary cases he thinks cold water the best remedy; but, if the burn be very extensive, it cannot be employed with propriety, lest it should still further depress the function of the skin. In these severer cases, it is necessary to protect the terminations of the nerves laid bare by the destruction of the epidermis; and this is best done by soothing applications, such as cream, butter, or oil. A mixture of linseed oil and lime-water is particularly good, but care must be taken that it does not spontaneously ignite. Dr. Rust has also frequently used Stahl's salve with the most satisfactory results, especially in cases where deformity was to be guarded against; it consists of equal parts of melted butter and yellow wax repeatedly rubbed down with water. Instead of this, he sometimes used an ointment composed of butter, yolk of egg, and linseed oil. When suppuration took place, saturnine remedies were avoided as much as possible, partly because they cannot be borne, and partly because they cause deformed scars. Dr. Rust never tried the use of oil of turpentine, brandy, or similar stimulants, and attributes the apparent success which has sometimes attended their use to Nature, who is able to overcome not only the disease but the remedy.

It is painful to see the frequency with which sarcasms of this kind are bandied about, even among the most calm and philosophic practitioners; and it is equally painful to reflect how many years must pass away before these epigrams can be answered by facts; before the best treatment of severe burns, for example, can be demonstrated by what M. Louis calls the numerical method, and we can know whether we

ought to rely upon Kentish or upon Rust.

Later experience has taught our author the advantage to be derived in some cases from repeatedly sprinkling flour on the burnt surface, from the application of cotton, or scraped potatoes, and lastly from the use of a solution containing one or two grains of nitrate of silver to the ounce of water. The last remedy deserves our especial attention, partly on account of its desiccating quality, and partly because it forms as it were an artificial epidermis, and thus protects the skin from the action of the atmosphere.

Among the cases of burning our author includes one of poisoning by sulphuric acid. The patient's life was saved, but a difficulty of swallowing remained behind, which was more troublesome some years subsequently than immediately after her recovery, and compelled her again to seek for advice.

"Inflammation of the tongue occurred twice; once in consequence of the tongue having been violently compressed between the teeth during convulsions; and once it accompanied a severe salivation, caused by less than six grains of calomel. The tongne dry, hard, and inflamed, projected beyond the lips like an immovable mass, the saliva flowed incessantly from the mouth, and the patients were without sleep, and in a state of the most utter anxiety

and disquietude.

"Large general bleedings, leeches to the chin, a blister to the back of the neck, emollient waters held in the mouth, steamings, and vegetable juices applied with a brush, (Pinselsäfte,) resolved the inflammation in the second case; but, in the first one, they produced a scarcely perceptible alleviation of the sense of suffocation. until, on the fourth day of the disease, three deep incisions were made into the tongue, evacuating a large quantity of blood, and causing an immediate diminution of the swelling. On the following day, the tongue, which was half its previous size, no longer protruded beyond the lips, and hardly a trace was to be seen of the Two deep incisions were now effected more backwards. towards the root of the tongue, as the bistoury could now be introduced farther into the cavity of the mouth; and thus this violent and unfrequent inflammation was so perfectly dissipated under the continued use of mucilaginous and light aromatic mouth-waters, that not a trace remained of the diseased metamorphosis of an organ which had been so seriously affected." (P. 58-59.)

Ninety-three cases of bubo occurred, chiefly syphilitic; eighty-seven patients were cured, two discharged at their

own request, one was transferred to a different division of the hospital, and three remained under treatment. The bubo was usually a secondary or consecutive form of disease, more rarely primitive, and still more seldom sympathetic. Rust's practice will appear eccentric to most of our readers; for it was only when the disease appeared in the last-mentioned form, that he attempted to discuss the tumour: in the majority of cases he encourages the suppuration. opinion that the principle which has been so confidently laid down, that buboes are to be discussed, has done as much mischief as the local treatment of gonorrhœa by injections; and would have done much more, were it not that the precept is very difficult to be put into practice. He asserts that these erroneous rules have been derived from the fact that a bubo, which has been opened too early, or which has been suffered to burst too late, is one of the most obstinate of diseases; but thinks that the difficulty is entirely got over if we open the bubo as soon as all induration has disappeared around the swelling, and no sooner.

Calomel and the Ung. Hydr. are the mercurial preparations which he prefers in this form of syphilis, and he declares, from repeated experience, that the corrosive sublimate is not only

unsuitable, but injurious.

Dr. Rust narrates at great length a case which had nearly terminated fatally. The patient, a young man, of twenty-three, entered the hospital, June 21st, 1814, with a suppurating bubo, and all the signs of syphilitic cachexia. The bubo had been opened by caustic far too early, for the surrounding parts were as hard as a stone. He had already been ill four months, and got progressively worse for several more, under a great variety of treatment, when, a consultation being held, it was almost unanimously determined that he was suffering not from syphilis, but from mercury. Sulphur baths and other remedies were now ordered, but without advantage, and, at the end of December, the surface of the sore was ash-coloured, putrid, slimy, ichorous, and stinking.

Dr. Rust, having often observed that, when it is desirable to alter the character of a sore, the nitrate of silver, corrosive sublimate, and the red precipitate, are the most efficacious applications, began with the first two, but with little or no benefit. He then tried the red precipitate, with the most marked advantage: the sore lost its ashy hue, became perfectly clean and red, and secreted healthy pus. Still it made no progress in healing; and Dr. Rust, believing that the syphilitic virus was not yet extinguished, and having found such remarkable advantage in the external use of the red precipi-

tate, determined to prescribe it internally. On the 13th of February, 1815, he ordered one sixth of a grain of red precipitate with five grains of sulphuret of antimony, and five of sugar, to be taken twice a day.

"If the effect of the red precipitate, externally applied, might be called wonderful, much more did its effect, when given internally, deserve this epithet; for the patient not only bore the powder without the slightest inconvenience to the digestive organs, but his whole look was altered in a short time. What calumba, cinchona, Iceland moss, opium, camphor, musk, and ether had been unable to do, was at once effected by the powder. The colliquative sweats and diarrhæa ceased; the patient's appetite returned, his strength visibly increased, the surface of the sore daily diminished, and, what had been aimed at in vain in a period of eight months, (or, to count from the beginning of the disease, in a year,) was now perfectly attained in six weeks. On the 30th of April, 1815, the patient was dismissed perfectly cured, after having taken twenty-three grains of the red precipitate.

"Since this period I have met with several cases of highly neglected, ill-treated, suppurating and gangrenous buboes; and, in every instance, the red precipitate sprinkled on the sore has shown extraordinary power in changing its character." (P. 74-75.)

Dr. Rust adds, that the general cachexia and weakness induced by syphilis cannot be cured by cinchona or acids, or by any medicine save mercury; but makes a half exception in favour of Zittmann's Decoction, which is a sort of Decoct. Sars. C.

In treating of inflammation of the prostate, our author mentions a remedy recommended by Dr. Fischer, namely, thirty or forty grains of muriate of ammonia every two hours; and says that he has himself found it very useful in diseases of the bladder and prostate.

The number of ulcers treated during these five years was considerable, namely 688, including 65 chancres; of the remainder, 562 were in the feet, 61 in other parts. The rules laid down for the treatment of different ulcers show the practised surgeon, and form a good compendium of "Helco-

logy," as Dr. Rust calls it. They are as follows:

1. Irritable ulcers. If the ulcer was painful, its bottom brown, rather dry than moist, the secretion scanty, and the edges raised and painful, and even the neighbouring parts red and inflamed, the continued application of plain lukewarm water, or Goulard water and emollient bran poultices, were the most serviceable remedies. But there are ulcers of so irritable a character, that, to touch them, excites convulsions; and leeches, applied in the vicinity of the diseased part, in-

crease instead of lessening this sensibility. The surface of the ulcer has nothing peculiarly striking about it, not even an appearance of irritation or inflammation, and is commonly far from large; it is sometimes smooth, shining, and devoid of all granulation, and at others covered with pale loose cellular substance. This rare species of ulcer has several times been observed by Dr. Rust, who affirms that there is only a single remedy of efficacy in these cases, but that is a sure one, namely, the red precipitate.

2. Fetidulcers. In unclean sores, with very fetid secretion, and putrid surface, which was even in part sphacelous, the application of charcoal, of chamomile flowers, of myrrh and of camphor, (sometimes in powder, and sometimes made into an ointment with oil of turpentine,) pyroligneous acid, camphor wine, and solution of chlorine, were the most efficacious means of removing the fetor, and of chemically altering and improving the secretion; at the same time that they strengthened the relaxed fibres, and by increasing the activity

3. Luxuriant granulation. When the surface of the ulcer was luxuriant, but not otherwise unhealthy, the best effects were produced by the continued application of cold water, and Goulard's solution, with low diet, frequent aperients, and an elevated position of the suffering part. When the granulation was luxuriant, and at the same time spongy, the application of the solution of nitrate of silver with opium, of a solution of corrosive sublimate (from two to three grains to the ounce), of the expressed juice of the small-leaved plantain of camphor wine, or sometimes merely a dry and rather tight bandage, were the most efficacious remedies.

4. In the case of sluggish ulcers warmth and moisture were applied in the shape of fomentations and bran poultices, and they were dressed with stimulating ointments, such as the Ung. Basilicum cum Tr. Myrrhæ, or the Ung. Hydr. rubr.,

and with distinguished success.

5. Varicose ulcers. In old ulcers of the foot, when the surrounding parts were varicose and callous, the edges indurated and prominent, and the bottom smooth and cup-shaped, the whole of the affected parts were wrapped up in strips of plaster, with evidently favourable results. A simple unirritating plaster, such as the Empl. Plumbi or Empl. Saponis, was always selected for this purpose. The pressure soon improved the condition of the parts, the relaxed surface of the sore was stimulated, and the indurated edges became soft. The remedies having produced their effect, their continuance would have been injurious, and other expedients were adopted

for the cicatrization of the ulcer. A solution of nitrate of silver with Tr. Opii was generally used, or else Goulard's water, according as stimulants or sedatives seemed to be indicated.

- 6. Gouty ulcers were also treated with the greatest advantage by the application of a simple plaster, such as those just mentioned, though the form and condition of the sore did not always allow of its being put on circularly. Other remedies could rarely be borne, especially if they were applied in a moist or fluid form.
- 7. Scrofulous ulcers were injured by all emollient or relaxing remedies; but, on the other hand, the most efficacious were the sprinkling the secretory surface with red precipitate, chamomile flowers, bark, &c.; the application of the phagedenic water, the solution of nitrate of silver, the expressed juice of the small-leaved plantain, and the following dressings.
- R. Ung. saturnini 3j.; Hydr. præcip. rubri 3ij.. M. R. Extr. Anthem., Conii, Calendulæ, aa 3ij.; Aquæ Laurocerasi 3ij.; Tr. Opii 3iss. M.

In cases which had been very much neglected, the entire removal of the edges of the sore by the scissors or knife, considerably hastened the cure of the sore itself.

8. Scorbutic ulcers were most effectually treated by dressing them with Theden's arquebusade, camphor wine,

pyroligneous acid, and powdered charcoal.

- 9. Impetiginous ulcers, whether they took their rise from a psoric, herpetic, or any other eruption, got well under the use of mercury (in the shape of the red or white precipitate, or the sublimate,) acetate of lead, sulphate of zinc, and charcoal. In addition to the combination of lead ointment with the red precipitate given above, phagedenic water, and fomenting the part with infusion of chamomile combined with acetate of lead and tincture of opium, Dr. Rust says that he can recommend the following dressing:
- R. Ung. Saturnini 3j.; Ung. Rosat. 3ss.; Hydr. præcip. albi, Zinci oxydi, aa 3ij.; Pulv. carbon. lign. tiliæ 3iij. M.

Suitable general remedies were of course administered at the same time; among the best were sulphur, sulphuret of antimony, the Æthiops antimonialis, and Zittmann's Decoction.

The local application of fresh cabbage-leaves and a poultice of raw potatoes were frequently of great efficacy in cleansing the sore, particularly in herpetic ulcers.

10. Primary syphilitic ulcers, or chancres, were treated

on the principle that, in the majority of cases, a general mercurial course is not requisite for the radical cure; and that the chief thing necessary is locally to change the nature of the sore, and to decompose and destroy the virus which is present. For this purpose the vesicle which forms after infection or the small excoriated spot which may already be present, should immediately be touched with the nitrate of silver, to prevent the spreading of the sore, and the absorption of the virus. This is to be done only during the first three or four days, a period when patients seldom seek advice: it is not to be recommended afterwards, when the sore has spread, and is copiously suppurating; for then the suppression of suppuration, by the forming of a crust, might give rise to vicarious disorders, especially buboes. In such cases, the application of a solution of caustic potash (a grain to an ounce of water,) was of more benefit than other and similar remedies; this is the less surprising, as caustic potash confessedly possesses the power, in so remarkable a degree, of decomposing animal poisons, that ablution with this wash after connexion has proved the most decided preventive of syphilitic infection.

Dr. Rust also recommends the black wash, with the addition of opium, in the proportion of a scruple to an ounce. The solution of corrosive sublimate, the red precipitate ointment, &c., were less frequently employed, and were obviously

inferior in efficacy.

To this it may be answered, of course, that syphilitic sores will heal easily with any or no treatment, and the important point to be settled is, what treatment of the chancre will most diminish the chance of secondary symptoms without injuring the constitution of the patient, or adding fresh malignity to the secondary symptoms, should they arise in spite of the remedies.

Our author has some interesting observations on these and other topics relating to syphilis in the volume before us, (p. 163-180.) He begins by repeating, in an abridged form, an instructive set of experiments which he formerly published in the fifth volume of his Journal. Thirty patients, suffering under syphilitic ulcers of the genitals, of apparently the same kind, were divided into three classes. Ten were subjected to a purely local treatment; ten others took, in addition, mercury internally, until the local disease had disappeared; and the other ten, (following Hufeland's precept,) continued the internal use of mercury, when the local disease was cured; and if salivation appeared, they then continued the remedy after its disappearance, in diminished doses, for the same

length of time that it had required to cure the sore. recovered the soonest, in the majority of cases, who had used mercury internally also. Within a twelvemonth, only one of those who had been treated without mercury came under treatment again for secondary symptoms, without having again exposed himself to syphilitic infection. Under similar conditions, three of those who had taken mercury internally until the disappearance of the local disease were affected with secondary syphilis; and also one of the ten patients who had continued the use of mercury after the cure of the sore, and who, for the most part, had been salivated. Dr. Rust never perceived either in these or in many other cases which have since occurred to him, that the secondary symptoms are more obstinate or more severe in those who have used mercury, than in others; but he confesses that cases of organic destruction, especially of the bones, are much rarer now that the fashion of treating syphilis without mercury has become pretty generally diffused, than formerly, when people fancied that they could not cure any syphilitic affection whatever without mercury; which, moreover, was too often administered in the most absurd manner. It is not mercury in itself, however, which seems to have so pernicious an influence on the frame, but its irrational administration, and particularly its use when the diet and regimen are ill regulated.

Nor is Dr. Rust inclined to think less highly of the internal administration of mercury from the unfavourable results attending it in the experiments detailed above. He is convinced that they are to be attributed to a bad diagnosis of the cases, or to other accidental causes: but concedes, at the same time, not only that in many cases we can radically cure local syphilis, without mercury; but that mercury, though it may accelerate the cure, is by no means able to prevent the transition of the disease into general syphilis, even when used

in the most orthodox manner.

The axiom laid down by Dr. Rust in his lectures has therefore, he says, remained undisturbed for twenty years: mercury can cure syphilis in all its forms, but cannot prevent it.

Our author observes that chancres sometimes occur, which without producing the phenomena of a general lues, resist all the usual methods of treatment, and attack the cellular substance so vigorously, that if the progress of destruction is not stopped by some most efficacious local remedies, fistulous openings into the urethra take place, and a great part of the glans is destroyed. These sores are not obviously different from the ordinary ones, but are generally situated on the

in vain.

frænum which they soon entirely destroy. The bottom of the sore is lardy, and remains so, and does not become clean under the use of any of the ordinary remedies. The sore deepens and spreads daily, and is not influenced by mercury. The method of cure consists in touching the chancre very freely with lunar caustic, and then bathing the penis for a quarter of an hour in cold water. In three days the sore will be found to have resumed its lardy appearance, when the same proceeding must be repeated. After this has been done three or four times it will be found that the sore no longer spreads, but on the contrary that its edges begin to skin over; yet even then the application of the caustic is to be continued until the last spot is cicatrized. Dr. Rust has never seen a sore of this kind, when treated in this manner, followed by secondary symptoms.

The caustic itself, however, failed in one instance. The patient was a gentleman, who had previously taken calomel, by the advice of another physician, and who went through a great variety of treatment under Dr. Rust's care, without benefit. The red precipitate sprinkled on the sore was of immediate advantage, although the ointment had been used

Our author then enters at some length into the general question as to the local treatment of ulcers, namely, whether medicinal substances or simple water be preferable. Zellenberg used no application but decoction of mallows; and Kern confined himself to tepid water. It is not to be denied, says Dr. Rust, that these doctrines lessened the abuse that had formerly been made of ointments and plasters, and restored Nature to her rights. But it is possible to have too much of a good thing, and this was clearly the case with Professor Kern's method. Dr. Rust, persuaded that the healing of ulcers was essentially the work of nature, believed at the same time that the process could be furthered by art, and published his Helkologie, in opposition to Kern: but, as in other medical controversies, so it happened in this, that the advocates of both sides brought forward their own successful cases, as a proof of the excellence of their treatment, and clearly showed that the unsuccessful cases of their adversaries were rendered so by malpractice; and, doubtlessly, both parties had ample opportunities of triumphing in their own success, and in their adversaries' failure. So difficult is it, says our author, even in a science which depends on experiments, to perform any which shall be elevated above doubt, and unassailable by objection! Dr. Rust, however, endeavoured to do this in the following manner. An ulcer was

divided into two equal parts by a small strip of adhesive plaster; and one half of its surface was covered with linen dipped in lukewarm water, while the other was dressed with applications varying according to circumstances. This experiment was made with all the usual dressings, in all kinds of ulcers, and in a great number of cases. The patient sometimes took no medicine, at others was treated on general principles. The effect of each dressing was carefully compared with that produced by the tepid water, and the results put down. appeared, beyond all contradiction, that the simple treatment with tepid water was sufficient in many cases, and in many was even preferable to unctuous dressings; in many, again, it was disadvantageous, particularly where the granulation was too luxuriant; and in very many cases it effected nothing, or so little, that while the other half of the ulcer was already changed into a simple suppurating sore, the part treated with plain water was hardly cleansed superficially, and, instead of plastic pus, continued to secrete fetid and virulent ichor.

Besides these results, the experiments led to a more accurate knowledge of the different efficacy of the ordinary dressings, and their substitutes. In order to investigate this more closely, two strips of plaster were placed in the form of a cross over the ulcer, thus dividing it into four parts. Suppose the ulcer to have been gangrenous or putrid, one part was treated with nitre, another with cinchona, a third with charcoal, and the fourth with oil of turpentine, or with some ointment, or with plain water. Or, if the object was rather to balance the respective merits of similar substances, than to contrast those of opposite ones, drugs of the same class were applied together; for example, the barks of cinchona, oak, and willow; or solutions of nitrate of silver, caustic potash, and nitrate of mercury. The most unexpected results were the consequence. Thus, in flabby, unclean, putrid, and sphacelous sores, the gastric juice of animals, so much recommended by Carminati and Sir Everard Home, was far less efficacious than nitre, in the highest degree of putridity, and in slighter degrees was inferior to charcoal, camphor, and oil of turpentine. too, powdered rhubarb, though recommended by Sir E. Home in torpid ulcers with a flabby but abundant granulation, was not superior to other aromatic and slightly astringent powders, such as powdered chamomile; nor to other dressings indicated in these cases, such as a solution of nitrate of silver, of corrosive sublimate, of camphor wine, &c. again, whether applied as a fomentation or a powder, could neither be replaced by oak bark, willow bark, nor calamus root, either in decoction or powder, but only by chamomile flowers, which were so good a substitute, that cinchona was never used any more externally. A solution of nitrate of silver could not be replaced by one of caustic potash, nor by a solution of corrosive sublimate, and only partially by a solution of nitrate of mercury; but quite perfectly, as far as regards its effect upon suppurating surfaces, by the expressed juice of the plantain. Dr. Rust is of opinion, that it is by no means a matter of indifference which one is selected out of a class of similar remedies: for example, whether we make use of cinchona or oak bark, caustic potash or nitrate of silver. If the remedy is ill selected, the cure is delayed, or perhaps not effected at all.

In a subsequent part of the work, (p. 382-397,) Dr. Rust has recorded his opinions on the nature and treatment of constitutional syphilis. One hundred and ninety-five cases of this disease occurred; of which, 170 were perfectly cured, six were discharged uncured, seven were transferred to a different division of the hospital, three were sent to asylums, (Siechen-Versorgungshäuser,) on account of important mutilations, six died, and three remained under treatment.

Our author says, that of all the remedies which have been substituted for mercury in the treatment of syphilis, no one has been so much used as muriatic acid, which was recommended by Zeller, in a treatise printed in 1797; and he tells us, that this writer supposed calomel and corrosive sublimate to owe their efficacy to the muriatic acid which enters into their composition. Dr. Rust took the trouble to go through the journals of the syphilitic wards in the Vienna hospital; and he found that many hundred patients, labouring under syphilis in all its forms, had been cured without taking a grain of mercury: in fact, for many years it played quite a subordinate part in these wards, and the quantity of mercury annually prescribed was a mere nothing, when compared with the number of patients, and the quantity of muriatic acid which was used. Dr. Rust accordingly resolved to use muriatic acid in the same manner; that is to say, giving a drachm daily in two pounds of barley-water, but did not succeed in curing a single patient. At first he was unable to explain so singular a discrepancy in the results; but he soon discovered that it depended on a difference in the diet. Von Zellenberg, who had had the syphilitic wards under his care, gave his patients as little as possible to eat, and Dr. Rust determined to copy him. He did so, and was successful. He then diminished the dose of muriatic acid, and ultimately omitted it altogether; and the results were equally favourable.

But, although our author fully satisfied himself that the disease might be extirpated either by simple abstinence, or by the use of sarsaparilla, (which he considers a debilitating medicine,) or by saline purgatives, with occasional bloodletting, still he thinks it unjust to found upon these experiments a condemnation of mercury, and to contest its antisyphilitic powers, which have been confirmed by the experience of centuries. Putting aside the debilitating effects of the antiphlogistic method of curing syphilis, when long continued, it is far from being true that every case of the disease can be radically cured without mercury. This is shown, not only by cases of general syphilis, which, after having been fruitlessly treated for months and years with low diet, cleansing ptisans, aperients, nitric and muriatic acids, muriate of gold and soda, &c. were at last cured by mercury; but, in addition, by the relapses of cases apparently cured by the antiphlogistic method, which were never so frequent as since this way of treating method has become the order of the day in Germany also. Hence we ought to be content with having demonstrated that low diet and the antiphlogistic treatment are not only able of themselves to subdue syphilis in its milder forms, but are extremely valuable adjuncts to mercury.

Our author insists strongly on the necessity of the mercurial course being accompanied by a very low diet, and says, very justly, that, the more strictly this is observed, the more quietly the patient stops at home, or in the hospital, the less he is exposed to changes of temperature, or other occasions of taking cold, and, the more sparing his diet, the less mercury will be necessary to subdue the syphilis, the quicker and the more entire will be the cure of the patient, and the less shall we have to do with after-diseases, which are too

commonly attributed to the mercury.

And, as it is by no means a matter of indifference under what circumstances, neither is it unimportant in what form, mercury is given. The following are Dr. Rust's opinions on

the latter point.

1. Calomel is indispensable in all the forms of syphilis whose essential character consists in inflammation,—such as buboes, inflammation of the prepuce, of the testes, of the conjunctiva of the eye, &c., as well as all the forms which make their appearance in vigorous individuals, showing increased power of production by new formations. In the latter cases it should be given in large doses, the best method being Weinhold's, which is as follows: The patient is to have eight ten-grain doses of calomel, and four powders, each con-

taining fifteen or twenty grains of jalap, and the same quantity of tartrate of potash. He is to take one dose of calomel on an empty stomach, about an hour before bedtime, and then drink two cups of broth. After the lapse of half an hour, another dose is to be taken, and then two cups more of broth. Twelve hours afterwards, the patient takes a few small cups of coffee without milk; and this is generally followed by three or four fluid evacuations. If this is not the case, one of the aperient powders is taken. The same cycle of remedies is to be repeated on the fourth, seventh, and tenth day, when the doses of calomel will have been consumed; and, if necessary, the course may then be repeated.

2. Syphilitic eruptions, chancrous sores of the neck, the nose, or the frontal sinuses; syphilitic iritis; and all the secondary forms of the diseases which quickly spread, seem to put on a carcinomatous look, and threaten the loss of any organ, demand the active use of corrosive sublimate; and, if the malady is particularly obstinate, the internal use of the red precipitate, which is best given in Berg's method, as

follows:

R. Antim. Sulph. nigri, Əviij.; Hydr. Præcip. rubri, gr. ij.; Sacchari albi, Əij. M. et div. in pulv. xvj. Sumat j. omni manè et nocte.

As soon as these powders have been consumed, the prescription is repeated, but with two additional grains of the red precipitate. When these powders have been used, the quantity of the red precipitate is again increased by two grains; and so on, until the quantity of the mercurial salt in the prescription amount to ten grains. As soon as this point has been reached, the quantity is diminished by two grains in each prescription, until it sinks down to two grains again. The whole course therefore lasts nine weeks; but the desired object is often obtained by half the course, that is, by the use of the remedy in an ascending series only. Should diarrhœa occur, opium is added to the powders, and cinnamon, in case of nausea or vomiting.

3. In syphilitic affections of the bones, the ligaments, or bursæ mucosæ; in lymphatic exudations in the joints, the eye, &c.; in ulcerous metamorphoses of the surface of the skin; in cases where organic destruction is already going on, and whenever the state of the intestinal canal renders it intolerant of mercury administered internally, the ointment is to

be rubbed in.

4. No remedy is superior to corrosive sublimate in rapidly improving the appearance of any syphilitic malady, or in arresting the progress of organic destruction. By itself,

however, it is the least capable of effecting a radical cure, or

of securing the patient against relapses.

5. Among all the methods hitherto known of curing an inveterate lues by mercury, none is less adapted to its object than Hahnemann's mercurial course; and, on the other hand, none is more adapted to do wonders in desperate cases than a methodical course of inunction and abstinence. This combination was employed, with the most distinguished success, in the Vienna hospital; and one cannot but smile, says our author, to hear objections brought forward against it by uncalled clamourers (unberufene Schreier), who, without any experience of their own, endeavour from behind their desks to write down the merits of this system.

Dr. Rust is no pessimist, and acknowledges that the treat

ment of syphilis has much improved of late years.

"Such cabinet pieces of syphilitic metamorphoses, and illtreated patients, as I used to meet with continually, only eighteen years ago, here in Berlin, are never seen now; and a multitude of secondary symptoms, which formerly yielded only to abstinence and rubbing-in, are now frequently cured solely by the use of Zittmann's decoction, provided that a proper diet is observed at the same time, and that the decoction is used in the manner prescribed; so that, in fact, the cases in which the severer system is necessary occur but seldom. In such cases, however, it must be employed in the only effective manner, and no modifications must be permitted, which abolish the very essence and peculiarity of the course. It is not any and every application of mercurial ointmen' which may pass current for the course; and he who imagines tha. by merely lowering and altering the patient's diet, rubbing in every other day, ordering a bath on the intervening day, and an aperient occasionally, that he has employed the course just mentioned, and at the same time has taught something new, merely proves that he has not comprehended in what the essence of the methodical course of inunction consists, in what is its salutary principle, and in what it differs from the irregular courses of rubbing in which have been known and put in practice for centuries." (P. 396.)

The observations on the influence of diet in the treatment of disease (p. 439-452,) are remarkably sensible; but, though much/neglected in practice, there is little in them which we could present to our readers, as new in theory. Dr. Rust asks, what are the remedies by which a synocha is usually and successfully treated? and answers, that the fortunate result may be attributed, with more justice, to low diet, repose, and a proper temperature around the patient, than to the Decoctum Althææ, the Inf. Verbasci or Sambuci, a

drachm of nitre, a few drachms of sulphate of soda, an ounce of plum or elder jam, the favourite Spir. Mindereri (Liquor. Ammon. Acet.), or the saline draught.

And, a couple of pages farther on, he says,

"This is the best explanation of the fact that, though diseases have been treated in the most different manner in different countries, the proportion of cures to deaths has always remained pretty nearly the same; because the dietetic regimen in different times and places has been far more uniform. In my opinion, giving the Aura Camphorata or the Inf. Valerianæ, with a few drops of Sp. Æth. Sulph. c., instead of Decoct. Althææ and nitre, is of less importance than the quality of the atmosphere surrounding the patient; or his taking, at an improper time, a bottle of wine, eating heavy and indigestible ammunition bread, a piece of roast beef, or a rich goose-liver pasty." (P. 444.)

Dr. Rust mentions, with great pleasure, the case of a lady, whom he recommended (in order, he says, to advise something that had not been advised before,) to eat nothing but spinage; and, solely by using this diet for ten weeks, she was cured of a St. Vitus' dance, which had resisted every remedy up to her twenty-second year. Hufeland mentions a case of obstinate impetiginous disease, which was cured by eating apples; whence he concludes that malic acid is a very efficacious remedy in this affection: but our author supposes, and we think with greater probability, that the merit is rather to be ascribed to the apples, as a whole, being used for food, than to this acid in particular. Dr. Rust observes, too, that the guzzling townsman would lose his gout, and the countryman his chronic diseases, by exchanging diet for a time; the former giving up his meat, the latter his vegetables.

The last essay, on Clinical Instruction, (p. 455-475,) is extremely well written; and Dr. Rust discusses, not as an advocate, but as a judge, the advantages to be respectively derived from attending hospital practice, visiting the poor at their own houses, or attending the instructions of a teacher who superintends a Klinik, i. e. a ward containing fifteen or twenty picked cases. To see the effects of treatment en masse,—to observe the powers of medicine, when it has to contend against penury as well as disease,—and to learn the practice of physic and surgery, as it were, chapter by chapter, are among the more obvious privileges of the three

methods of learning.

Thrice happy is the student who combines them all! He will learn at one time what can be done with a few cheap and simple drugs, and at another he will find new tools in the most exquisite refinements of modern pharmacy; sometimes

relying on his own diagnosis, he will at others have his errors (those parents of truth,) corrected by the most eminent practitioners. Such a man, neither despising the lessons to be derived from books, nor neglecting those to be conned at the bedside of the patient, will not split upon the rock of empiricism, nor be swallowed up in the vortex of booklearning. It is by the collected wisdom of the past, elaborated and improved in a congenial mind, that the great practitioner is formed; for we may almost apply to the physician what the most elegant of critics has said of the poet:

—ego nec studium sine divite venâ Nec rude quid prosit video ingenium, alterius sic Altera poscit opem res, et conjurat amicè.

Outlines of Botany; including a General History of the Vegetable Kingdom, in which Plants are arranged according to the System of Natural Affinities. By Gilbert T. Burnett, f.l.s., Professor of Botany in King's College, London.—London, 1835. Two vols. 8vo. pp. 1190.

In our first Number we performed the agreeable duty of introducing the early parts of this masterly work to our readers: we have now the still greater satisfaction of announcing that it is completed, and of recommending those alike who may be called the students of botany, and those who merely embellish their leisure hours with the amenities of the most delightful of the sciences, to procure the unrivalled Outlines of Professor Burnett.

To him who aspires to be a botanist, it is quite unnecessary to recommend these well-stocked volumes, for he possesses them already; but we would suggest to the practitioner of physic, who scorns to be a mere dealer in prescriptions, and who knows the grace as well as the light which the kindred sciences throw over medicine, that the work before us deserves a place in the most select library.

We approve highly of our author's practice of intermingling historical and pharmaceutical facts with the botanical definitions; and we should hold ourselves guilty of an illegal clipping of praise, if we were to use the ordinary phrase on these occasions, and merely laud the Professor for "relieving the dry details of botany" by these comments: they seem to us an essential part of the book.

Those publishers of schemes, and tables, and conspectuses, whose works bear the same relation to books that a skeleton does to a body, and whose marrowless productions, dry as the leaves in autumn, seem, like them, destined only to fall to the ground, utterly mistake the final object of the

science they would teach. It is true that the study of botanical definition, with its rapid alternations of analysis and synthesis, has a manifest tendency to improve the powers of reasoning; but this is an advantage picked up by the way. The ultimate scope of the science is to teach the properties of plants; and this can hardly be done without at the same time qualifying the student to understand the facts of the historian and the allusions of the poet.

The very names of plants, when affixed by some great master of the art of nomenclature, are not arbitrary symbols. When Linnæus is the nomenclator, we no longer ask, with the poet, "What's in a name?" for the very name tells. How elegant is the allusion in Salix Babylonica! how quiet the sarcasm in Buffonia tenuifolia! We are glad that Professor Burnett's work affords us many opportunities of illus-

trating our theory by examples.

Who has not heard of the Upas of Java, that vegetable demon, to approach which was death? It is curious that the fables about this tree did not spring up in the brain of an Italian romancer, but were the calm invention of a plain, sober, poly-bracciferous Dutch surgeon, one Foersch, who wrote some fifty years ago. In 1774, he was stationed at Batavia, in the service of the Dutch East India Company, and, having heard of the violent effects of the Upas poison, his curiosity was raised to so high a pitch, that he determined to investigate the subject personally. Observe how circumstantial the knave is.

"I procured a pass to travel through the island from the governorgeneral, and a recommendation from an old Malayan priest to another priest who lived on the nearest habitable spot to the tree, which is about fifteen or sixteen miles distant, and who is appointed by the emperor to reside there, in order to prepare for eternity the souls of those who, for different crimes, are sentenced to approach

the tree, and to procure the poison.

"The Bohun Upas is situated in the island of Java, about twenty-seven leagues from Batavia, fourteen from Sonra Charle, the seat of the emperor, and between eighteen and twenty from Tinkjor, the present residence of the sultan of Java. It is surrounded on all sides by a circle of high mountains and hills, and the country round it, to the distance of ten or twelve miles from the tree, is entirely barren. Not a tree nor a shrub, nor even the least plant of grass, is to be seen. I have made the tour all round the dangerous spot, at about thirteen miles distant from the centre, and I found the aspect of the country on all sides equally dreary. The easiest ascent of the hill is from the part where the old ecclesiastic dwells. From his house the criminals are sent for the poison, into which the points of all warlike instruments are dipped. It is

of high value, and produces a considerable revenue to the

emperor.

"The poison which is procured from this tree is a gum that issues out between the bark and the tree itself, like the camphor. Malefactors, who for their crimes are sentenced to death, are the only persons who fetch the poison; and that is the only chance they have of saving their lives. After sentence is passed upon them by the judge, they are asked in court whether they will die by the hands of the executioner, or go to the Upas-tree for a box of poison. They commonly prefer the latter alternative, as there is not only some chance of preserving their lives, but also a certainty, in case of their return, that provision will be made for them in future by the emperor. They are provided with a silver or tortoiseshell box, into which they are to put the poisonous gum, and are properly instructed how to proceed while they are upon the dangerous expedition. Among other particulars, they are always told to attend to the direction of the wind, as they are to go to the tree before the wind, so that the pestilential smell may be blown from them: they are told likewise to travel with the utmost dispatch, as that is the only method of effecting a safe return. They are afterwards sent to the house of the priest, to which place they are commonly attended by their friends and relations; here they generally remain for some days, in expectation of a favorable breeze, during which the ecclesiastic prepares them for their future fate, by prayers and admonitions. When the hour of their departure arrives, the priest puts on them a long leathern cap, with two glasses before their eyes, which generally comes down to the breast, and also provides them with a pair of leathern gloves: they are then conducted by the priest. and their friends and relations, about two miles on their journey. Here the priest repeats his instructions, and tells them where they are to find the tree; he shews them a hill which they are to ascend. and tells them that on the other side they will find a rivulet, which they are to follow, and which will conduct them directly to the Upas; they now take leave of each other, and, amidst prayers for their success, the delinquents hasten away.

"The worthy old ecclesiastic has assured me that during his residence there, for upwards of thirty years, he had dismissed about seven hundred criminals in search of poison, and that scarcely two out of twenty have returned. He shewed me a catalogue of the unhappy sufferers, with the dates of their departure. I was present at some of the melancholy ceremonies, and desired different delinquents to bring with them some pieces of the wood, or a small branch, or some leaves of the wonderful tree. I have also given them silk cords, desiring them to measure its thickness. I never could procure more than one or two dry leaves, that were picked up by one of them on his return; and all that I could learn of him was, that the tree stood on the bank of the rivulet, that it was of a middling size, that five or six young trees of the same kind stood close by it, but that neither shrub nor plant could be seen near it;

and that the ground was of a brownish sand, full of stones, almost impracticable for travelling, and covered with dead bodies." (P. 552.)

And then the ingenious Hollander goes on to say, that no living animal of any kind has ever been discovered within the space of fifteen or eighteen miles round the tree; and that, in 1776, he saw thirteen of the sultan's wives put to death

by the poison.

"Thus far the historical romance. The facts ascertained by different travellers, and confirmed on many hands, are the following The Antiar or Bohun-Upas, is a native of Java and the neighbouring isles, growing to a large size, and being found not in barren districts, but in the most fertile places. So far from destroying other vegetables, climbing plants twist round its stem as they do round other trees; neither are its exhalations so noxious as to destroy birds flying over, or animals that approach it; yet, although neither MM. Deschamps and Leschenault experienced any inconvenience, other persons are said to suffer from headach, and to have uncomfortable sensations when in its vicinity, similar to those which are produced by the exhalations of the Manchineel tree, the Rhus radicans, and other plants, especially some of the Euphorbiacea. Leschenault even smeared some of the venomous juice over his hands with impunity, but he washed them immediately afterwards. The sap which exudes from wounds made in the tree is a bitter gum-resin. It is of a light hue when drawn from the young branches, and dark yellow if taken from the old stem, but both kinds become nearly black on drying. The Javanese make a mystery of its preparation, and pretend that the fresh sap is inert, and that it gains its power bot certain additions they make to it, and the process it undergoes. But Hoosfield has shewn that these pretensions are false. In Java the poison is kept in a semi-fluid state, resembling treacle, while in Borneo it is rendered solid. It is usually preserved in the hollow joints of the bamboo, and, if excluded from the air, retains its extraordinary powers for an unlimited time." (P. 554.)

It would seem that, in Javanese, *Upas* signifies poison, and the island contains a *Upas* valley, as well as a Upas tree. The valley is a huge reservoir of carbonic acid gas, alike destitute of vegetation, and destructive of animal life.

"The origin of Foërsch's centaurian tale must now be evident: that UPAS meant poison, and was an adjective term applied to deleterious things of various kinds, whether trees or places, he knew not; he had heard of the *Upas*, had probably witnessed its effects as a poison, and not improbably had seen the real Bohun Upas tree, which perhaps may sometimes grow in a barren district, such as he has described. He had heard of the Valley of Death, the Upas valley, and he might even have ridden round some sterile spot for thirty miles, fearing to tread upon its precincts, lest he

should approach too closely to the chimera he had formed, by combining the accounts of the *Upas valley* and the *Upas tree*." (P. 557.)

To show the varied information with which the Outlines abound, we will now make half-a-dozen short extracts from different parts of the book.

"(3415.) Cicuta virosa, the Cowbane, is a very poisonous plant to men, and some animals, such as kine; although others, such as horses, sheep, and goats feed on it with impunity. In the moist pastures of Sweden it used to occasion a yearly plague amongst horned cattle, until the cause was pointed out and a preventive suggested by Linneus. When full grown, the odour is so strong that the cows avoid it; but when young, the smell is so faint that they eat it indiscriminately with the other herbage amongst which it abounds. Linneus therefore recommended the graziers to keep their cattle in the upland pastures until the cowbane was well grown, and then they might be driven to the lowlands, as their instinct wound prevent them touching the plant; his advice was taken, and their annual losses, which were immense, from that period ceased." (P. 775.)

"(3912.) Sinapis nigra, and alba, are the black and white mustards of commerce. Other species are acrid and pungent, such as the S. arvensis, the corn mustard or charlock, but less so, or of a less agreeable favour, than the two which are in common cultivation. The mustard seeds consist of mucilaginous and farinaceous matter, combined with a bland fixed oil, and a volatile or essential one of great pungency. The acridity of this latter is increased by keeping the seeds for a moderate time after collection, or at once developed by the addition of vinegar. The fixed oil expressed from the seeds of the white mustard is bland and tasteless, while the marc or cake left, after the expression, being deprived of so much mild insipid matter, is more acrid than the seeds in their original condition. The oil is excellent for all ordinary domestic purposes. Nitrogen exists in the seeds as well as other parts of these plants, whence the presence of ammonia and ammoniacal salts, and their peculiar animal odour, may be easily accounted for. White mustard seeds have at different periods been popular as stimulating cathartics, and in leucophlegmatic habits the taking one or two tablespoonsful of the unbruised seeds would seem to have been beneficial; for, in their passage through the intestines, they give out but a small proportion of their pungent principles, and these are obtunded by the mucilage with which they are combined: ulceration of the intestines and death have, however, been known to occur from some of these acrid seeds lodging in the vermiform appendix of the cæcum. A case of fatal enteritis, thus produced, has been recorded by my friend, Professor Wheeler, in his Chelsea Catalogue. The seeds of mustard are not only remarkable for the rapidity of their development, so that it has been said a salad might be grown

while a joint of meat was being roasted, but also for their tenacity of life, for where a crop of mustard has been once seeded, self-sown stragglers will come up for a century afterwards." (P. 865.)

"(4047.) The Coriariæ are astringent plants, and their leaves, especially those of C. myrtifolia, have been employed by dyers to strike a black colour with the salts of iron. Their succulent fruits are, if eaten in any quantity, poisonous. Sauvages witnessed death ensue in half an hour after some were eaten. And Pujada mentions an instance of fifteen soldiers who were poisoned by them in Spain; twelve of these men recovered, but three died. other cases are on record; and it appears that a kind of drunkenness is at first produced, which lasts for about half an hour; the face then becomes pale and livid, the speech is lost; there is foaming at the mouth, spasms of the muscles of the jaws, and horrible convulsions of the whole frame, death ensuing in about seventeen hours. The leaves and young twigs, possess the same deleterious properties as the fruit, and when animals browse on them they are seized with intoxication attended by vertigo, and, if much has been eaten, by death. Accidents have happened in France from the leaves of this plant having been fraudulently substituted for senna, and administered to the sick instead of that drug. Guibourt and Dublance detected this iniquitous fraud, their attention having been directed to the circumstance of untoward symptoms following the exhibition of what was believed to be senna. One of the cases on record is that of a man who was seized at Hazebrouk with tetanus, after taking a small quantity instead of senna, and who died in four hours; the remains of the dose were given to a dog, which was killed by it in ten minutes. M. Fee has furthermore stated. that when he visited the drug-warehouses at Lisle, Turcoing, Menin, and their vicinities, in 1828, he found the senna almost universally adulterated with the leaves of the Coriaria myrtifolia, called in France Redon or Redoul. The detection of such frauds is however easy, as the leaves of the Redoul differ in their venation from those of the sennas, the basal costules being very long, divergent, and forming an extended intro-marginal line, instead of being equal with the other ribs. The leaves are also pointed, which they are not in the best senna (Cassia obovata), but this will not distinguish them from C. acutifolia, although to a practised eye the difference in form is obvious, and the venation alone is a sufficient guide." (P. 887.)

"None of the Labiata are poisonous, nor are any even suspected of being injurious; the betony is the most acrid of the whole. Scarcely any are used as ordinary food, although many form grateful condiments; the stachys and the basil being perhaps the only ones that are esculent as pot-herbs. They are all more or less fragrant, most are sweet-scented, but some are fætid. Their odours are in general owing to the essential oils which are secreted in abundance, and found in numerous receptacles on their leaves and

Fee observes, that odoriferous plants exhibit three remarkable variations; in some the aromatic principle is free, and then it is dissipated by drying; this occurs chiefly in flowers, such as in the tuberose and jasmine; it is not communicable either to water or spirit, and seems to be artificially retained only by the aid of fixed oils; and occasionally, as in the lilly and narcissus, it cannot be retained at all. In some the aromatic principle is in union with, or is peculiar to the essentially oil, with which the utricles or cryptæ are replete; and in this form it is miscible with water and alcohol, but scarcely with fixed oils. In others again, it is in combination with a resin or gum-resin, and then it may be collected in concrete masses by wounding the plants, or if by distillation, it deposits camphor after standing for some time. The fragrance of the Labiata is dependent on an essential oil or odoriferous principle of the latter kind, and their oil is remarkable for the quantity of camphor it contains. Besides the essential oils which render them stimulating, the Menthacæ likewise contain a bitter principle, which occasionally is so predominant as to render them useful tonics, and even serviceable febrifuges." (P. 970.)

"(4609.) Caoutchouc has been found in the milky saps of several of these plants. It exists in a small but notable quantity in the juices of Apocynum Androsæmifolium, A. Cannabinum, Willughbæa scandens, Vahea gummifera, Urceola elastica, and others, but more especially in the two last-named, from which it is procured for commercial purposes in great abundance, the chief of the cuoutchouc brought from the East Indies being extracted from these plants, which are natives of Sumatra and Madagascar. might probably be obtained from several species of Tabernæmontana, to which genus both Vahea gummifera and Urceola elastica are referred by Sprengel; as well as from various other more or less common plants; for one of the not least remarkable features in the history of this extraordinary substance (once regarded only as a curiosity, and brought to this country in very small quantities as a rarity,) is, that as uses for it have been devised new sources of it have been discovered; and the more its importance and general applicability in the arts have been established, the more common and abundant it has become. Of its numerous applications this is not the place to treat in detail, but it may not be irrelevant to observe, so great is its present consumption, that several thousand tons of it have been imported during the few early months of the current year, while, five or six years ago, it scarcely formed a noticeable entry in our books of customs; and, half a century back, its existence was scarcely known. The first public mention of caoutchouc, or, as it was then called, Indian-rubber, which name it still retains, although it is now but seldom used by artists, is in a note, added by Dr. Priestley to the Preface of his "Treatise on the Theory and Practice of Perspective," dedicated to Sir Joshua Reynolds, and published in 1770. He says, "Since this work was

printed off I have seen a substance excellently adapted to the purpose of wiping from paper the marks of a black-lead pencil. It must therefore be of singular use to those who practise drawing. It is sold by Mr. Nairne, mathematical instrument maker, opposite the Royal Exchange. He sells a cubical piece of half an inch for three shillings, and he says it will last several years." Now it is

imported by tons, and sells at from 2d. to 6d. per lb.

"(4610.) Caoutchouc is a most extraordinary substance, not only in its uses, but also in its chemical composition. It consists solely of carbon and hydrogen, the former in great excess; and, by subjecting it merely to the action of heat, it assumes various different mechanical conditions, and changes its state from a solid to a permanent, and even ethereal liquid form, without varying the proportions of its elements. When once solidified from the sap, in which it is suspended or combined, it is scarcely soluble in any ordinary menstrua, except the essential oils and coal naphtha; but the fluid caoutchucine, procured by the distillation of solid caoutchouc, is one of its most perfect and effectual solvents; thus affording the remarkable paradox of a substance being soluble in itself. The saps in which it is naturally found in a fluid state are no less extraordinary than the caoutchouc they contain, for this solid matter exists in them in a fluid state in the proportion of nearly, if not quite one half of their weight; and yet this sap moves through the delicate vessels of the plants without interruption, thus strangely burdened, but not encumbered. No blood of animals, or any other vital fluid, is known to contain such a vast proportion of solid matter." (P. 1014.)

"(4877.) Two further generalizations cannot however with propriety be omitted. In the first place, it is remarkable that those genera or species which are common to the torrid and temperate, to the temperate and frigid, or to all the several zones, are found of a larger size, and often assume an arborescent port, in the warmer regions; while in the extratropical and circumpolar latitudes they are reduced in size, often degenerating into shrubs or Thus the Araliaceæ are arborescent plants, the common Umbelliferæ herbaceous ones; the equatorial Asteraceæ trees or shrubs, those of the temperate zones undershrubs or herbs, and those of the circumpolar regions, altogether lowly herbaceous plants. And, secondly, it is no less worthy of remark that the tropical genera include for the most part a greater number of species than those belonging to the extratropical zones; that the polar and circumpolar regions exhibit examples of a greater number of genera in any given number of species, i.e. possess fewer species of the genera present in them that either the torrid or the temperate zones, and that it is in the moister parts of the equinoctial, or the temperate regions, and especially in their warmer or subtropical latitudes, that individual plants are the most abundantly produced, and grow to the most excessive size." (P. 1063.)

We have at different times been permitted, by the kindness of Mr. Burnett's publisher, to embellish our pages with several of the cuts which illustrate the Outlines; and we are again under obligations to him for allowing us to show our readers, by the breadth and relief of the following designs, how great has been the progress of xylography within these few years.

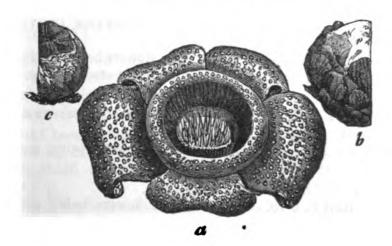


Brugmansia Zippeli.

- (a) A fully developed plant, growing parasitically on the root of a cissus, with two others, in a very young state.
- (be) Other plants, in further stages of growth, to show the scales by which the flower is enclosed, as by an hybernacle.

Rafflesia Patma.

(a) Entire flower. (b) Section of a bud beginning to expand. (c) Another, before expansion.



An extract or two from the Synopsis, with which the work concludes, may give some notion of the classification adopted, and will show that Professor Burnett excels as well in the austerities as in the amenities of botany.

"CLASS VI. PALMARES: PALMS, and their Allies.

"(4976.) SYN. Arbores Arundinaceæ, Herbæ Bulbosæ et Bulbosis Affines, Ray. Palmæ et Lilia, Lin. Part of Monocotyledones, Juss. Part of Endorhizeæ, Richard. Exdogenæ Petaloideæ, De Cand., &c. Part of Endogenæ Cryptocotyledoneæ, Agardh.

"(4977.) GEN. RULE. Non-glumose flowering Termaffines; or monocotyledonous endogenæ, with the flowers either naked or invested by a distinct perianth, which is often petaloid.

"(4978.) Exceptions. In some plants, as in Lemna, tubular vessels have not been observed; and in others, as some of the

Aroidea, the points of germination are indeterminate.

"(4979.) Obs. The stems of the Palmares are in general unbranched, only a single bud being usually developed. They are either abortive, as in the bulbiferous species, or columnar, as in the Palms. Two or more buds are however sometimes developed, as in the garlic, and the stem becomes occasionally branched, as in the rhizoma of the iris, the asparagus, the doum palm, &c. The venation of the leaves is also for the most part simply linear; but in the Smilaceæ, Dioscoraceæ, and Callaceæ, it is retiform: the leaves likewise, which are almost universally without articulation, are distinctly articulated with the stem, in many of the Orchidinæ." (P. 1099.)

"PINEALES.

"(5648.) SYN. Conifere, Ray, Lin., Juss., &c.

"GEN. RULE. Gymnospermous exogenæ with branched stems, simple leaves, linear costules, non-gyrate vernation, and resinous juices. (1400.)

"(5649.) TAXINÆ. TAXACEÆ. BACCIFERÆ (part), Ray.

Coniferæ (part), Juss., De Cand., &c.

"GEN. RULE. Ib. The pistilline flowers being distinct, and the fruit a taxule, i. e. the solitary seed invested by a succulent scale. (1405.)

"(5650.) CUPRESSINÆ. THUJACEÆ. BACCIFERÆ (part),

Ray. Conifere (part), Lin., Juss., &c.

"GEN. RULE. Ib. The pistilline flowers being congested and erect, and the fruit a galbule. (1404.)

"(5651.) ABIENTINÆ. PINACEÆ.

"GEN. RULE. Ib. The pistilline flowers being congested and reversed, and the fruit a strobile or true scaly cone. (1403.)" (P. 1149.)

Substance of a Clinical Lecture on a Case of Hydrophobia, delivered at the Charing Cross Hospital, Monday, November 24, 1834; to which are appended the Particulars of another Case admitted into the Hospital, October 21, 1834. By T. J. Pettigrew, f.r.s. &c., Surgeon to the Hospital.—London, 1834. 8vo. pp. 35.

The subject of this lecture was a shopman, æt. eighteen, who was bitten by a mad dog, between the 21st and 28th September, 1834; and the symptoms of hydrophobia began on the 18th of November. Mr. Pettigrew observes, that this is the period after the bite at which the disease most commonly commences.

"In the majority of cases, the disease manifests itself within two months. Dr. Hamilton constructed a table (which I am at present engaged in extending, and the result of which I shall lay before you at a future time,) from which it appears that the disease seldom appears before the nineteenth day or after the eighteenth month. In 131 cases, the number from the eighteenth to the thirtieth day are only 17; from the thirtieth to the fifty-ninth, 63; from two to three months, 23; from three to four months, 9; five months, 2; five months and eleven days, 1; six months, 1; seven months, 1; eight months, 2; between eight and nine months, 1; nine months, 2; eleven months, 1; fourteen months, 1; eighteen months, 2; nineteen months, 1; which perhaps is, of well authenticated cases, the longest period known. All stated to have occurred beyond this time are probably fabulous, or not depending upon the bite to which they have been referred. The ancients generally ascribed forty days as the time at which the disease would become apparent, and subsequent observation has confirmed the remark." (P. 22.)

The patient survived the attack three days, the last one of which was passed in the Charing Cross Hospital. The treatment consisted chiefly of tobacco enemata. The following were the post-mortem appearances:

"Spinal Chord. The theca was of the natural appearance; no fluid within it, and no particular vascularity upon the surface of the chord itself, the medulla of which presented its natural whiteness.

"Head. The dura mater adhered with great firmness to the skull. The longitudinal sinuses were empty: a small quantity of blood was seen in a fluid state in some of the large veins leading to the sinuses. The hemispheres of the brain had a milky white appearance, upon the removal of the dura mater, and this was observed to be greatest in the intergyral spaces between the convolutions: the general milkiness of the membranes disappeared in some degree upon exposure to the air. The membranes were much

less injected with blood than could be expected. The substance of the brain was very firm, and less vascular than ordinary; there were fewer bloody points from divisions of vessels observed than A quantity of fluid, amounting to between two and three drachms, was found in the lateral ventricles: it was not at all The plexus choroides was turgid with venous blood, and the vessels in the left ventricle were much fuller than those of the right. The pineal gland contained no sabulous matter, but was very tough in its substance, which did not break down under the pressure of the fingers, as usual. The greatest vascularity observed throughout the brain was of the pia mater, over the pons Varolii, and medulla oblongata. Here the vessels were highly injected with arterial blood, particularly on the right side, and they were very strongly adherent to the parts beneath. The membranes over the optic nerves and the anterior crura cerebri were also very vascular. The absence of vascularity in the brain generally was remarkable, and not a drop of fluid was found at the basis. The lateral sinuses, like the longitudinal, were empty.

Neck. The muscles were dark coloured, and fuller of blood than usual. The tongue had its papillæ very large, particularly at the root; there were no pustules about the frænum. The tonsils were much enlarged, but not vascular. The pharynx and æsophagus were throughout perfectly natural; there were not the slightest appearances of inflammation in any part. The larynx and trachea were also free of any marks of vascularity, excepting at the bifurcation of the latter at its entrance into the lungs, where it was slightly reddened. The inner surface of the larynx and trachea were smeared with a dark-coloured fluid, which appeared to be a portion of a dark bilious fluid, a small quantity of which was found in the stomach, and of which a considerable quantity had been

vomited up prior to death.

"Thorax. Not a drop of effusion was contained in either cavity of the chest. All the viscera had their natural appearance; the lungs contained air, and were rather remarkable for the very small quantity of blood in them. There were some adhesions between the pleuræ on the left side, but they were not recent. The phrenic nerves and the diaphragm presented their usual natural appearance; the heart was rather more fatty than is usually found in persons of so early an age. The pericardium contained about half an ounce of light straw-coloured fluid. The left ventricle was empty, firm, and thick, and its substance of a dark colour; the right ventricle had some small portions of coagula. The large vessels presented no marks of increased action; their inner surfaces were quite white. The great sympathetic nerve was perfectly healthy.

Abdomen. The liver was natural, but the gall-bladder was distended with a bile, perfectly black: it had communicated no tinge to the surrounding parts. The stomach was very much contracted; and, upon opening it, it was found to contain about four ounces

of a greenish-coloured fluid. The rugæ were very strongly marked, and the glands about the cardia and pylorus were more conspicuous than usual, and contained a whitish coloured deposit, giving a strumous appearance to them. This conjecture is supported by the enlarged state of the tonsils, a much enlarged condition of the mesenteric glands, and also an increase of firmness in the pancreas. No abrasions or extravasations of any kind were observable in the stomach; neither was there any appearance of vascularity to be seen, except towards the pylorus, where a slight redness was discernible. The intestines were distended with air. and presented a very dry appearance: they contained no feculent The small intestines presented no particular vascularity, matter. and there were no spots of discoloration. The whole of the descending colon and the rectum were powerfully contracted, but not diseased in their structure; there was also a contraction in the centre of the transverse arch of the colon.

"The kidneys were healthy, but the urinary bladder was very firmly contracted, and as hard to the feel as a dense fleshy mass; the muscular fibres were observable through the peritoneal covering firmly contracted. The penis was observed to be in a state of tension, that may be considered as semi-priapism.

"Hand. The punctures on the palm of the right hand were examined, and the nerves of those parts traced, but no appearance of inflammation or disorder of any kind was apparent." (P. 19.)

In the other case, the patient was a man, æt. forty-seven, who had been bitten by a cat, five weeks before the appearance of the symptoms. He was admitted into the Charing-cross Hospital, on the 21st of last October, and died on the following afternoon. Tobacco enemata and strychnia pills were the chief remedies employed. The spinal chord was not diseased, and the post-mortem examination presented but little worthy of note. The following is a part of it.

"Abdomen. The stomach contained a little mucus: it was considerably inflamed near its cardiac extremity, and at the lower part of its smaller end the surface was abraded. This did not appear to have arisen from the action of the gastric juice, for the vessels were distinctly visible, ramifying minutely at this spot. The duodenum was strongly tinged with bile, and slightly inflamed. The jejunum was inflamed, but the remainder of the small intestines, and the larger ones, were quite healthy. The liver was indurated, granular in its appearance, and had adhesions to the diaphragm: none of these appearances could be regarded as recent. The gall-bladder was full, and its ducts pervious. The spleen was enlarged, and gorged with blood. The kidneys were more injected with blood than usual, and vessels were observable ramifying on the pelvis of them. The bladder was found strongly contracted.

"Neck and Thorax. The trachea was inflamed, particularly between the rings: a similar condition was found to exist in the bronchiæ and their termination. The pleura was healthy, but contained a pint of fluid. The lungs were gorged with serum, and blood and sputa. In the bronchial plexus of nerves there appeared no change. The substance of the heart was softer than natural, and the right side contained several coagula. The left auricle was of a deeper colour than the left [sic]. The aorta appeared of an uniformly high red colour, which increased in depth as it approached nearer the heart." (P. 34.)

Our author still thinks that tobacco clysters deserve further trial, for he does not allow that they have yet had a fair one. In the case of Grindley, the shopman, the malady was too far advanced; and the older patient, in addition to this disadvantage, had a frame broken down by organic disease. "Twenty-six years since my excellent friend Dr. Clutterbuck had a case of hydrophobia, in a delicate child, to whom, in an advanced state of the disease, an injection of tobacco was administered, with the view of allaying the violent spasms operating upon the muscular system. It was followed by a tranquillity extending so far as to procure sleep for three hours. The practice was not persisted in, and the child died." (P. 25.)

These cases deserve perusal, from the extreme minuteness with which they are detailed; and we are glad to learn that Mr. Pettigrew intends to publish a complete history of hydrophobia.

The Epidemics of the Middle Ages. From the German of I. F. C. HECKER, M.D., Professor at Frederick William's University at Berlin. Translated by B. G. Babington, M.D., F.R.S. No. II. The Dancing Mania.—London, 1835. 12mo. pp. 206.

Few persons who have studied the meaning of medical nomenclature, can have failed to be struck with the term St. Vitus's Dance. The contortions of this disease have no resemblance to dancing; and St. Vitus is a saint so little known in this country, that we recollect to have seen a quaint conjecture that chorea Sancti Viti was a corruption of chorea invita. This conjecture, however, is opposed to the excellent, though not infallible rule of Griesbach, that uncommon words are corrupted into common ones, and not vice versā. Moreover, St. Vitus, though but little known here, appears to have been a person of some note. He was a Sicilian youth, who suffered martyrdom, with Modestus and Crescentia, in the reign of Diocletian, A.D. 303.

The origin of the term dance is seen clearly enough, by the

light which history affords. Those originally seized with the epidemic chorea really did dance, and though, in the progress of centuries, the disease has gradually become so mild that the term is inapplicable, it is still retained by the natural tradition of nomenclature. We shall follow Dr. Hecker, who begins his work with an account of the epidemic of 1374, though, as it appears afterwards, there had been much earlier dancing plagues.

"ST. JOHN'S DANCE. The effects of the Black Death had not yet subsided, and the graves of millions of its victims were scarcely closed, when a strange delusion arose in Germany, which took possession of the minds of men, and, in spite of the divinity of our nature, hurried away body and soul into the magic circle of hellish superstition. It was a convulsion which in the most extraordinary manner infuriated the human frame, and excited the astonishment of contemporaries for more than two centuries, since which time it has never reappeared. It was called the dance of St. John or of St. Vitus, on account of the Bacchantic leaps by which it was characterized, and which gave to those affected, whilst performing their wild dance, and screaming and foaming with fury, all the appearance of persons possessed. It did not remain confined to particular localities, but was propagated by the sight of the sufferers, like a demoniacal epidemic, over the whole of Germany, and the neighbouring countries to the north-west, which were already prepared for its reception by the prevailing opinions of the times.

"So early as the year 1374, assemblages of men and women were seen at Aix la Chapelle who had come out of Germany, and who, united by one common delusion, exhibited to the public both in the streets and in the churches the following strange spectacle. They formed circles hand in hand, and appearing to have lost all control over their senses, continued dancing, regardless of the bystanders, for hours together, in wild delirium, until at length they fell to the ground in a state of exhaustion. They then complained of extreme oppression, and groaned as if in the agonies of death, until they were swathed in cloths bound tightly round their waists, on which they again recovered, and remained free from complaint until the next attack. This practice of swathing was resorted to on account of the tympany which followed these spasmodic ravings, but patients were frequently relieved in a less artificial manner, by thumping and trampling upon the parts affected. While dancing they neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits whose names they shrieked out; and some of them afterwards asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high. Others, during the paroxysm saw the heavens open and the Saviour enthroned with the Virgin Mary, as indeed the religious notions of the age were strangely and variously reflected in their imaginations."
(P. 1.)

In severer cases, the attack began with epileptic convulsions. The patients fell to the ground, sprang up foaming at the mouth, and then commenced their dance amid strange contortions.*

The malady spread, and in many towns of Belgium "the dancers appeared with garlands in their hair, and their waists girt with cloths, that they might, as soon as the paroxysm was over, receive immediate relief on the attack of the tympany. This bandage was, by the insertion of a stick, easily twisted tight: many, however, obtained more relief from kicks and blows, which they found numbers of persons ready to administer; for, wherever the dancers appeared, the people assembled in crowds, to gratify their curiosity with the frightful spectacle." (P. 6.)

Strasburg was visited by a similar epidemic, in 1418: an

old chronicle says,

Viel hundert fingen zu Strassburg an Zu tanzen und springen Frau und Mann, Am offnen Markt, Gassen und Strassen Tag und Nacht ihrer viel nicht assen, Bis ihn das Wüthen wieder gelag, St. Vits Tanz ward genannt die Plag.†

It is obvious that the disease was considered one of great importance.

"Many who were seized at the sight of those affected, excited attention at first by their confused and absurd behaviour, and then by their constantly following the swarms of dancers. These were seen day and night passing through the streets, accompanied by musicians playing on bagpipes, and by innumerable spectators attracted by curiosity, to which were added anxious parents and relations, who came to look after those among the misguided multi-

 The foaming or spitting is mentioned in a Belgian chronicle, in the following line:

Gens impacata cadit, dudum cruciata salvat.

Dr. Hecker very properly reads salivat for salvat, but he should have emendated the beginning of the line too; for we would not rashly think so ill of a fellow-creature (not even of the author of an old Belgian chronicle,) as to suppose that he would make a hexameter beginning with Gens impacata cadit: it should either be impacta or pacata; we prefer the latter; pacata standing for lassata, worn-out and lulled by the dancing.

† At Strasburgh hundreds of folks began To dance and leap, both maid and man; In open market, lane, and street, They tripped along, nor cared to eat, Until their plague had ceased to fright us. 'Twas named the dance of holy Vitus.

tude who belonged to their respective families. Imposture and profligacy played their part in this city also, but the morbid delusion itself seems to have predominated. On this account religion could only bring provisional aid, and therefore the town-council benevolently took an interest in the afflicted. They divided them into separate parties, to each of which they appointed responsible superintendents to protect them from harm, and perhaps also to restrain their turbulence. They were thus conducted on foot and in carriages to the chapels of St. Vitus, near Zabern and Rotestein, where priests were in attendance to work upon their misguided minds by masses and other religious ceremonies. After divine worship was completed, they were led in solemn procession to the altar, where they made some small offering of alms, and where it is probable that many were, through the influence of devotion and the sanctity of the place, cured of this lamentable aberration. It is worthy of observation, at all events, that the dancing mania did not recommence at the altars of the saint, and that from him alone assistance was implored, and through his miraculous interposition a cure was expected, which was beyond the reach of human skill." (P. 13.)

In discussing the causes of these epidemics, Dr. Hecker says,

"When we observe, however, that the first dancers in Aix la Chapelle appeared in July with St. John's name in their mouths, the conjecture is probable that the wild revels of St. John's day, A.D. 1374, gave rise to this mental plague, which thenceforth has visited so many thousands with incurable aberration of mind, and

disgusting distortions of body.

"This is rendered so much the more probable, because some months previously the districts in the neighbourhood of the Rhine and the Maine had met with great disasters. So early as February, both these rivers had overflowed their banks to a great extent; the walls of the town of Cologne, on the side next the Rhine, had fallen down, and a great many villages had been reduced to the utmost distress. To this was added the miserable condition of Western and Southern Germany. Neither law nor edict could suppress the incessant feuds of the Barons, and in Franconia especially, the ancient times of club law appeared to be revived. Security of property there was none; arbitrary will everywhere prevailed; corruption of morals and rude power rarely met with even a feeble opposition; whence it arose that the cruel, but lucrative, persecutions of the Jews, were in many places still practised through the whole of this century, with their wonted ferocity. Thus, throughout the western parts of Germany, and especially in the districts bordering on the Rhine, there was a wretched and oppressed populace; and if we take into consideration, that among their numerous bands many wandered about, whose consciences were tormented with the recollection of the crimes which they had committed during the prevalence of the black

plague, we shall comprehend how their despair sought relief in the intoxication of an artificial delirium. There is hence good ground for supposing that the frantic celebration of the festival of St. John, A.D. 1374, only served to bring to a crisis, a malady which had been long impending; and if we would further inquire how a hitherto harmless usage, which, like many others, had but served to keep up superstition, could degenerate into so serious a disease, we must take into account the unusual excitement of men's minds, and the consequences of wretchedness and want. The bowels, which in many were debilitated by hunger and bad food, were precisely the parts which in most cases were attacked with excruciating pain, and the tympanitic state of the intestines, points out to the intelligent physician, an origin of the disorder which is well worth consideration." (P. 23.)

These are by no means the most ancient examples of the kind. A hundred children were seized with a similar affection in the year 1237; and, in 1278, two hundred fanatics danced upon the bridge over the Moselle at Utrecht, "and would not desist, until a priest passed who was carrying the Host to a person that was sick; upon which, as if in punishment of the crime, the bridge gave way, and they were all drowned." (P. 28.)

Still more ancient traces are to be found.

"A similar event also occurred so early as the year 1027, near the convent church of Kolbig, not far from Bernburg. According to an oft repeated tradition, eighteen peasants, some of whose names are still preserved, are said to have disturbed divine service on Christmas eve, by dancing and brawling in the churchyard, whereupon the priest, Ruprecht, inflicted a curse upon them, that they should dance and scream for a whole year without ceasing. This curse is stated to have been completely fulfilled, so that the unfortunate sufferers at length sunk knee deep into the earth, and remained the whole time without nourishment, until they were finally released by the intercession of two pious bishops. It is said, that upon this, they fell into a deep sleep, which lasted three days, and that four of them died; the rest continuing to suffer all their lives from a trembling of their limbs." (P. 28.)

In the beginning of the sixteenth century, the disease began to give way.

"About this time the St. Vitus's dance began to decline, so that milder forms of it appeared more frequently, while the severer cases became more rare; and even in these, some of the important symptoms gradually disappeared. Paracelsus makes no mention of the tympanites as occurring after the attacks, although it may occasionally have occurred; and Schenck von Graffenberg, a celebrated physician of the latter half of the sixteenth century, speaks of this disease as having been frequent only in the time of his fore-

fathers; his descriptions however are applicable to the whole of that century, and to the close of the fifteenth. The St. Vitus's dance attacked people of all stations, especially those who led a sedentary life, such as shoemakers and tailors; but even the most robust peasants abandoned their labours in the fields, as if they were possessed by evil spirits; and thus those affected were seen assembling indiscriminately, from time to time, at certain appointed places, and unless prevented by the lookers on, continuing to dance without intermission, until their very last breath was expended. Their fury and extravagance of demeanour so completely deprived them of their senses, that many of them dashed their brains out against the walls and corners of buildings, or rushed headlong into rapid rivers, where they found a watery grave. Roaring and foaming as they were, the bystanders could only succeed in restraining them by placing benches and chairs in their way, so that their strength might be exhausted by the high leaps they were thus tempted to take. As soon as this was the case, they fell as it were lifeless to the ground, and, by very slow degrees, again recovered their strength. Many there were, who even with all this exertion, had not expended the violence of the tempest which raged within them, but awoke with newly revived powers, and again and again mixed with the crowd of dancers, until at length the violent excitement of their disordered nerves was allayed by the great involuntary exertion of their limbs; and the mental disorder was calmed by the extreme exhaustion of the body. Thus the attacks themselves were in these cases, as in their nature they are in all nervous complaints, necessary crises of an inward morbid condition, which was transferred from the sensorium to the nerves of motion, and at an earlier period to the abdominal plexus, where a deep seated derangement of the system was perceptible from the secretion of flatus in the intestines.

"The cure effected by these stormy attacks was in many cases so perfect, that some patients returned to the factory or the plough as if nothing had happened. Others, on the contrary, paid the penalty of their folly by so total a loss of power, that they could not regain their former health, even by the employment of the most strengthening remedies. Medical men were astonished to observe that women in an advanced stage of pregnancy were capable of going through an attack of the disease, without the slightest injury to their offspring, which they protected merely by a bandage passed round the waist. Cases of this kind were not unfrequent so late as Schenck's time. That patients should be violently affected by music, and their paroxysms brought on and increased by it, is natural with such nervous disorders; where deeper impressions are made through the ear, which is the most intellectual of all the organs, than through any of the other senses. On this account the magistrates hired musicians for the purpose of carrying the St. Vitus's dancers so much the quicker through the attacks, and directed that athletic men should be sent among them, in order to

complete the exhaustion which had been often observed to produce a good effect. At the same time there was a prohibition against wearing red garments, because, at the sight of this colour, those affected became so furious, that they flew at the persons who wore it, and were so bent upon doing them an injury that they could They frequently tore their own with difficulty be restrained. clothes whilst in the paroxysm, and were guilty of other improprieties, so that the more opulent employed confidential attendants to accompany them, and to take care that they did no harm either to themselves or others. This extraordinary disease was, however, so greatly mitigated in Schenck's time, that the St. Vitus's dancers had long since ceased to stroll from town to town; and that physician, like Paracelsus, makes no mention of the tympanitic inflation of the bowels. Moreover, most of those affected, were only annually visited by attacks; and the occasion of them was so manifestly referrible to the prevailing notions of that period, that if the unqualifted belief in the supernatural agency of saints could have been abolished, they would not have had any return of the complaint. Throughout the whole of June, prior to the festival of St. John, patients felt a disquietude and restlessness which they were unable to overcome. They were dejected, timid, and anxious; wandered about in an unsettled state, being tormented with twitching pains, which seized them suddenly in different parts, and eagerly expected the eve of St. John's day, in the confident hope, that by dancing at the altars of this saint, or of St. Vitus (for in the Breisgau aid was equally sought from both), they would be freed from all their sufferings. This hope was not disappointed; and they remained, for the rest of the year, exempt from any further attack, after having thus, by dancing and raving for three hours, satisfied an irresistible demand of nature. There were at that period two chapels in the Breisgau, visited by the St. Vitus's dancers; namely, the Chapel of St. Vitus at Biessen, near Breisach, and that of St. John, near Wasenweiler; and it is probable that in the south-west of Germany, the disease was still in existence in the seventeenth century.' (P. 46.)

Dr. Hecker attributes the ultimate disappearance of the dancing plague to the thirty-years' war, which raged in Germany from 1618 to 1648; for, "although the unspeakable calamities which they brought upon Germany, both during their continuance and in their immediate consequences, were by no means favourable to the advance of knowledge, yet, with the vehemence of a purifying fire, they gradually effected the intellectual regeneration of the Germans: superstition, in her ancient form, never again appeared, and the belief in the dominion of spirits, which prevailed in the middle ages, lost for ever its once formidable power." (P. 51.)

In the second chapter, Dr. Hecker treats of the dancing mania in Italy, and more especially of *Tarantism*. This was

the disease supposed to be occasioned by the bite of the Tarantula, a ground spider common in Apulia. The symptoms were as follows:

"Those who were bitten, generally fell into a state of melancholy, and appeared to be stupified, and scarcely in possession of their senses. This condition was, in many cases, united with so great a sensibility to music, that, at the very first tones of their favorite melodies, they sprang up, shouting for joy, and danced on without intermission, until they sunk to the ground exhausted and almost lifeless. In others, the disease did not take this cheerful turn. They wept constantly, and as if pining away with some unsatisfied desire, spent their days in the greatest misery and anxiety. Others, again, in morbid fits of love, cast their longing looks on women, and instances of death are recorded which are said to have occurred under a paroxysm of either laughing or weeping." (P. 65.)

The early accounts do not state that the patients felt an irresistible propensity to dancing, or were cured by it: this was the case, however, at a later period.

"At the close of the fifteenth century we find that Tarantism had spread beyond the boundaries of Apulia, and that the fear of being bitten by venomous spiders had increased. Nothing short of death itself was expected from the wound which these insects inflicted, and if those who were bitten escaped with their lives, they were said to be seen pining away in a desponding state of lassitude. Many became weak-sighted or hard of hearing, some lost the power of speech, and all were insensible to ordinary causes of excitement. Nothing but the flute or the cithern afforded them relief. At their sounds they awoke as it were by enchantment, opened their eyes, and moving slowly at first, according to the measure of the music, were, as the time quickened, gradually hurried on to the most passionate dance. It was generally observable that country people, who were rude, and ignorant of music, evinced on these occasions an unusual degree of grace, as if they had been well practised in elegant movements of the body; for it is a peculiarity in nervous disorders of this kind, that the organs of motion are in an altered condition, and are completely under the control of the overstrained spirits. Cities and villages alike resounded throughout the summer season with the notes of fifes, clarinets, and Turkish drums; and patients were every where to be met with who looked to dancing as their only remedy. Alexander ab Alexandro, who gives this account, saw a young man in a remote village who was seized with a violent attack of Tarantism. He listened with eagerness and a fixed stare to the sound of a drum, and his graceful movements gradually became more and more violent until his dancing was converted into a succession of frantic leaps, which required the utmost exertion of his whole strength. In the midst of this overstrained exertion of mind and body the music suddenly ceased, and he immediately fell powerless to the ground, where he lay senseless

and motionless until its magical effect again aroused him to a re-

newal of his impassioned performances.

"At the period of which we are treating there was a general conviction, that by music and dancing the poison of the Tarantula was distributed over the whole body, and expelled through the skin, but that if there remained the slightest vestige of it in the vessels, this became a permanent germ of the disorder, so that the dancing fits might again and again be excited ad infinitum by music. This belief, which resembled the delusion of those insane persons, who, being by artful management freed from the imagined causes of their sufferings, are but for a short time released from their false notions, was not entertained without the most injurious effects: for in consequence of it those affected necessarily became by degrees convinced of the incurable nature of their disorder. They expected relief indeed, but not a cure, from music; and when the heat of summer awakened a recollection of the dances of the preceding year, they, like the St. Vitus's dancers of the same period before St. Vitus's day, again grew dejected and misanthropic, until, by music and dancing, they dispelled the melancholy which had become with them a kind of sensual enjoyment." (P. 75.)

The third chapter is on the Tigretier, the dancing mania of Abyssinia; and the fourth is on the Effects of Sympathy. A curious instance is given in it of an epidemic hysteria among the girls of a cotton mill, arising in the first case from fright and disgust, and in the others from imitation; together with an account of the strange effects of ecstasy and frenzy among the Convulsionaires, the Shakers, Jumpers, and other

enthusiastic religionists.

The Appendix contains several interesting pieces, including extracts from old German chronicles. There are also eight pieces of music, to which the persons bitten by the tarantula danced: one is called the primus modus Tarentella, another the tono hypodorio, and so on. The music to which the Tarantati danced, and of which Kircher has preserved these specimens, will not, to modern ears, convey impressions so delightful and exhilarating as it appears to have produced at the period when that singular malady prevailed. Indeed, the invariable termination in a minor key, seems to prove that, amid all their wild excitement, melancholy was the dominant feeling of their minds.

It would now be our duty to give a general opinion on the merits of Dr. Hecker's work; but the translator, Dr. Babington, has given so good a review in his preface, that we cannot do better than extract a considerable part of it: for nothing can be more agreeable than to find our ideas anticipated, in language far more lucid than any in which we

could have hoped to embody them.

"The mind and the body reciprocally and mysteriously affect each other, and the maladies which are the subject of these pages, are so intimately connected with the disordered state of both, that it is often difficult to determine on which they more essentially de-

pend, or which they more seriously influence.

"The physician will probably be led by their contemplation to admit that the imagination has a larger share in the production of disease than he might, without a knowledge of the striking facts here recorded, have supposed to be within the limits of possibility. He has, no doubt, already observed, that joy will affect the circulation, grief the digestion, that anger will heat the frame as perniciously as ardent spirits, and that fear will chill it as certainly as ice; hut he may not have carried his observation to the extent of perceiving, that not only single and transient effects, but specific diseases are produced through the agency of mental impressions, and he may therefore still be surprised to find that the dances of St. John and of St. Vitus, as they formerly spread by sympathy from city to city, gave rise to the same deviations from bodily health, in all the individuals whom they attacked; that Tarantism was the same disease, whether medically or morally considered, all over Italy; and that the 'Lycanthropia' of the past, and the 'Leaping Ague' of the present times, have each its respective train of peculiar symptoms." (Pref. vii.)

"I thus venture to hope, that by bestowing a leisure hour on this small portion of medical history, the physician may enlarge his knowledge of disease, and the moralist may gather a hint for the intellectual improvement of his fellow-men. The author has, however, a more extended object in view; the histories of particular epidemics are with him but the data from which we are to deduce the general laws that govern human health in the aggregate. Whether there be such an entity as collective organic life, and whether, as a consequence, there exist general laws which regulate its healthy or morbid condition, I do not here undertake to determine; but the notion is peculiar, and in order that it may be more fully exposed to the reader, I have translated, as an introduction to the present volume, an Appeal which Dr. Hecker has made to the medical profession of his own country for assistance in his undertaking. If, in the course of the remarks contained in this address, he has been somewhat severe in his censure of the neglect, both in this country and in France, of the study of Medical History, I freely confess myself to be one of those who are more anxious to profit by his castigation than to dispute its justice." (Pref. xii.)

A Treatise on the Formation, Constituents, and Extraction of the Urinary Calculus; being the Essay for which the Jacksonian Prize, for the Year 1833, was awarded by the Royal College of Surgeons in London. By John Green Crosse, Surgeon to the Norfolk and Norwich Hospital.—London, 1835. 4to. pp. 231; Plates 29.

A work on Stone, by a surgeon of the Norwich Hospital, might at any time be expected to defy criticism; but, on the present occasion, when it has undergone the ordeal of the Council of the College of Surgeons, and been declared worthy of the prize, our task as reviewers merges into that of students, and we must be content to drink at the fountain, without venturing to give our opinion upon the taste or qualities of the waters. We trust our brethren will pardon us for descending from the altitude of universal knowledge, which ex officio belongs to us, nor consider us as traitors to our common dignity, in acknowledging that we can learn where it is our prerogative to dictate. Be that how it may, we are determined to risk the obloquy; and, regarding the text of this work as the record of very extensive experience, we shall venture on few observations, excepting in the way of comparison with the results of the metropolitan practice.

The labours of Drs. Yelloly and Prout have of late thrown so much light upon the formation and chemical composition of urinary deposits, that our author has not thought it expedient to dilate much upon these topics. With regard to the causes of calculous disorders, he agrees with all other writers, that they are generally consequent on dyspepsia; but he attributes more importance to sudden changes in the temperature of the atmosphere than, we believe, they are generally acknowledged to deserve. It is, in his opinion, to this cause that the county of Norfolk owes its unfortunate preeminence in the frequency of these affections; and, in support of this hypothesis, our author asserts that he has "repeatedly known persons, who were free from gravelly complaints whilst residing in the metropolis, affected by them, on spending a few weeks in the county referred to, and relieved, or entirely freed from them, on a change of residence, although in each situation they followed carefully the same diet." (P. 3.) There is no doubt much truth in this observation: every surgeon of experience must bear testimony to the sympathy between the skin and the urinary organs, especially in the diseased states of the latter; and also to the great relief afforded to patients suffering under this class of maladies, by

preserving them from the effect of sudden atmospheric

changes.

Of the local causes of stone, the principal are strictures of the urethra, enlarged prostate glands, diseased states of the mucous surface of the bladder, and hernial displacement of that viscus. In a note subjoined to the chapter, references are made to several cases where large calculous deposits have been consequent on cystocele; of which the most remarkable is a case published in the sixth volume of our respected predecessor, the London Medical and Physical Journal, where a stone, weighing twenty-three ounces, was found in the prolapsed bladder of a female, and presented an external tumour as large as a child's head.

Mr. Crosse has paid particular attention to the analysis of urinary concretions passed per urethram, and presents us with the following table of the relative frequency of different

calculi.

" Lithic acid or lithate of ammonia								72
Lithic ac	cid and or	xala	te o	f li	me			9
Oxalate	of lime							14
Carbona	te of lime	е						1
Triple pl	hosphate							2
Fusible								2

Total 100."

The results pointed out in this table are satisfactory, first, as corroborative of the accuracy of Dr. Marcet's tables; and, secondly, as supporting the views of Dr. Prout as to the renal or vesical origin of different concretions. We need scarcely remind our readers, that this table is chiefly valuable as illustrative of the calculous disorders of Norfolk; Drs. Marcet and Henry having shown, by various tables, that their composition depends much upon locality. To prove this, we need only instance the mulberry calculus:

In the Hunterian museum	, th	ney	for	m				05
In the Norwich collection							arly	
In the Guy's Hospital col	lect	tion			m	ore	tha	n į
In the Manchester collect	ion							į
In the Bristol collection								12

Thus it may be seen that oxalate of lime may form either a very large or a very small portion of urinary calculi, according to the locality where the examination is instituted; and the same may be observed of all the other concretions, though not perhaps to the same extent. As, however, the tables from which these proportions are extracted were drawn up some years ago, it would be well if the surgeons of the various districts would

158

follow the example of Mr. Crosse, and furnish us with the results of their more recent experience.

We are also indebted to our author for a more easy test of the oxalate of lime than that now in use: it is as follows.

"A particle of this concretion, being submitted to the flame of a spirit-lamp, urged by the common blow-pipe, a drop of dilute nitric acid is applied to the residue, and immediately globules of air are extricated, and can be seen rising through the fluid, with a magnifying glass, or even with the naked eye; these globules of air are carbonic acid gas, the heat applied having been just sufficient to decompose the oxalic acid, and out of its elements carbonic acid gas was formed, which united with the lime." (P. 8.)

The mechanical composition and growth of urinary calculi are becoming every day of greater interest, in proportion as the operation of lithotrity is more generally practised. Our author's remarks upon this part of his subject are excellent, and his plates still more so; but we must confess, though we hazard the charge of voracity, that we should have relished a greater abundance. Data as to the weight, friability, and form of the different calculi, are so especially required for the successful performance of that delicate operation, lithotrity, that we know of no other subject that would so well reward careful and assiduous research.

The friability of calculi is not always proportionate to their lightness or porosity: there are some composed of lithic acid, or lithate of ammonia and oxalate of lime, which, though extremely dense and heavy, are so fragile, that they may be broken either by some slight violence in sounding, or by shaking against one another in the bladder. Our author mentions an instance in which four calculi were fractured into twenty-two portions, under the action of the latter cause.

The rate of increase of different calculi is but little understood. Some surgeons have entertained the opinion that they are sometimes stationary; but, though instances of this kind may have occurred, they must be regarded as extremely rare. Those which increase most slowly are composed either of lithic acid or oxalate of lime. Our author's estimate is, that these may grow from one to two drachms yearly: he adds, however, that

"The actual increase, in all probability, will be greater, the larger the stone and more extensive the surface presented; but I have never found reason to believe that, in calculi of moderate size, above four drachms have been deposited in a year; the largest vesical calculi I have met with, weighing from eight to twelve ounces, have been fifteen or twenty years in forming. The following case

demonstrates the rate of increase with some accuracy in a particular instance.

"A patient was lithotomized, and two lithic acid calculi, weighing seven drachms and a half, were removed, one of which broke into several portions under pressure of the forceps. The patient recovered from the operation, but soon had a recurrence of symptoms of stone, which he bore for above seven years, when he died aged seventy-six. The calculus found in his bladder weighed 3ij. 3ij. 9j., and presented on a section a clear exhibition of a portion of the calculus left in the bladder at the time he was lithotomized, and which formed the nucleus of the subsequent deposit. The calculus is composed of lithic acid, and about two ounces were deposited in the period of seven years and a half." (P. 12.)

We are of opinion that but little importance can be attached to this case brought forward by our author; not only because it is a single case, but because the details are not sufficiently The composition of urine is constantly varying, as also is its degree of concentration and specific gravity; the process of crystallization (to which we believe the deposition of the stone to be similar,) cannot then go on at an equable It is therefore evident that we must be furnished with a history of the state of the urine during the whole period, before we can form any guess as to the relative quickness of the increase of the calculus. It may have happened that, during the first portion of this time, (viz. immediately after the operation,) great attention was paid to the state of the urine, and it might have been kept in a nearly neutral state; whereas, afterwards the acidity was permitted to abound, and the deposition of calculous matter may then have been, out of proportion, rapid. It would be easy for us to point out other circumstances which might render the increase of calculi unequal; but, as they must present themselves to the minds of all our readers, we shall content ourselves with merely reiterating that, in order to form data by which we may judge of the size of the stone, from the duration of its residence in the bladder, we must be furnished with tables of the relative states of the urine and increase of the calculi. This our author has not attempted; but as, of itself, it is an ample subject of investigation, no blame can rest upon him for the omission. He has well performed his task, in accumulating so many facts as this splendid volume contains.

Calculi composed of the phosphates increased with greater rapidity than any others. Mr. Crosse relates a case, in which he operated, where a stone weighing four drachms and a half had been formed in little more than three months. We remember hearing a very celebrated surgeon, at a consultation,

relate a case which occurred in his own practice, strongly illustrative of this fact; and, at the same time, conveying a lesson of caution to those who are fond of libelling their superiors. He had performed the operation of lithotomy, and extracted a stone composed of the phosphates. Almost immediately after the cicatrization of the wound, the symptoms returned, and the patient fell under the charge of another surgeon, who operated at the end of four months, and removed a very large calculus, of a similar character. It was soon noised abroad that the first-named surgeon had performed lithotomy, and left a stone in the bladder. He had, however, to endure the obloquy but a short time: the patient died at the end of a few weeks, and five phosphatic calculi were discovered in the bladder; leaving no doubt, in the minds of his medical attendants, that they had been formed since the operation.

Another circumstance, which it is important should be known, with reference to the increase of the size of a calculus, is, that two or more may be joined together by a deposit of fresh matter around them while lying in contact: this happened, as a note informs us, in the case of the largest vesical calculus ever known, it weighed forty-four ounces, and its history is given in the Philosophical Transactions for 1809,

page 303.

Our author has collected some curious facts with regard to the existence of calculi in the kidneys and ureters. To establish sound pathological views is certainly the first step to improvement in practice; and, accordingly, our readers will need no excuse for our presenting them with the details of the only case on record in which oxalate of lime has been found in the tubuli uriniferi of the kidneys.

"An elderly man was treated for rheumatism and lumbago in a public institution, where he lost appetite, had a diminished secretion of urine, a parched brown tongue, and died in a few weeks. A calculus was found in the left ureter, seven inches from the kidney, completely preventing the passage of urine through that channel into the bladder, and inducing enlargement of the ureter above it, as well as of the pelvic cavity, which was filled with fætid, muco-purulent fluid; the lining membrane of this cavity was thickened and morbidly vascular. The right kidney was of small size, but normal in exterior shape and in the condition of its pelvic and infundibular cavities. The parenchyma being cut through in different directions, the tubular part was found occupied by numerous white concretions, varying from the size of the smallest seeds to that of a large pin's head; these bodies were distributed over all parts of the substance of the kidney except the cortical portion; on

more minute investigation, I found them to be pure oxalate of lime, crystallized, transparent, and situated in the tubuli uriniferi. I cut thin slices of the organ, dried them, and placed them afterwards in spirit of turpentine, which exhibited the small concretions of oxalate of lime distinctly; but no drawing will convey any adequate representation of them; one of the largest slices was prepared by drying, and before it was quite dry, I cut down to the calcareous mass, and thus opened one of the tubuli and exposed a beautifully crystallized salt of oxalate of lime, and in this state it is now preserved in my cabinet." (P. 16.)

Lithic acid has frequently been found in this situation; and indeed Mr. Wilson, in his lectures on diseases of the urinary and genital organs, affirms that he has found it in the cortical substance. This fact militates strongly against the hypothesis proposed by Dr. Prout as to the origin of renal calculi. This distinguished chemist supposes that, in the case of lithic acid calculi, the acid escapes from the tubuli uriniferi into the infundibulum in a semifluid condition, and that, after remaining in this state for a greater or less time, crystallization may perhaps take place either in small granules, so as to form red gravel, or in a larger mass, as the nucleus of a stone. In the instance of oxalate of lime, his theory is more completely disproved by Mr. Crosse's case; for he imagines that "a solution of oxalic acid, nearly in a saturated state, and in union with a little lime, is secreted by a portion of one of the kidneys, instead of the lithic acid in the former case; that this, enveloped in the usual animal matters, passes from the infundibulum into the pelvis of the kidney, and, there meeting with the lime naturally contained in the urine secreted by other parts of the kidney, instantly combines with it." (Inquiry, page 209, second Edition.) The fact of crystals of oxalate of lime having been found by our author in the tubuli uriniferi, of course, refers their origin to that structure. Dr. Prout's theory was highly ingenious, but the discoverer and elucidator of so many important facts may well afford to throw away a false hypothesis.

The symptoms of a calculus passing along the ureters are known to every practical surgeon, as well as their effect when they occasion obstruction of that tube, in dilating the pelvic cavity, and producing absorption of the structure of the kidney. It is not, however, as generally known that the passage of a calculus through the narrow part of one of the infundibula to reach the pelvis of the kidney may excite a very similar train of symptoms. Our author, nevertheless, has clearly established this fact by the relation of several cases, from which we select the following:

"A man, aged sixty-four, following the occupation of a dyer, complained for years of a pain in his loins reaching as high as the scapulæ, but was otherwise stout, strong, and healthy, and kept to his regular labour, until he was suddenly seized with more severe pain, attended by very obstinate vomiting; this latter symptom persisted for several weeks, at the expiration of which time, and after an entire suppression of the urinary secretion for five days, he On dissection I found the left kidney of great size, weighing when deprived of all adipose substance, above twelve ounces, and in the pelvic cavity, there was a large calculus, of the size represented in plate iv., fig. 1. The infundibula were deepened, but not greatly increased in size; and there were evidences of inflammation of the kidney and of the lining membrane of the pelvis, which I presume was the cause of the complete suppression of urine and of death; for this was the only kidney the patient had for performing the function of this emunctory, no other trace remaining of the right kidney than a lobulated bladder, filled with an opake dirty fluid. On inspection I found that the whole of the parenchymatous substance of the right kidney had been absorbed, the common lining of the pelvis and infundibula being brought into contact with the external capsular covering, in consequence of a small black calculus obstructing completely the ureter very near its commencement." (P. 19.)

Our author has devoted a chapter to the subject of Urinary Calculi situated in the Urethra, and on Calculous Concretions in the Prostate Gland. He opens it with an account of the symptoms produced by the lodgment of the stone in the prostatic portion of the urethra and the neck of the bladder, which are thus enumerated.

"A stone thus placed creates great pain, and is usually accompanied by constant stillicidium; it is easily felt with the sound, but this instrument meets with great obstruction when an attempt is made to introduce it into the bladder; indeed, if there have long been stillicidium, this viscus becomes so much contracted, that there is hardly a vesical cavity remaining to receive the end of the sound. The surgeon may recognise such a position of the stone not alone by the symptoms enumerated, but by the sound coming in contact with it before being passed deep enough to enter the bladder; and if the stone occupying the prostatic urethra be large, it can be felt by the finger introduced per anum." (P. 26.)

From this statement it would appear that these cases are of easy diagnosis: they are not, however, in some instances. We remember a case which occurred a few years ago, which misled some of the most eminent surgeons of the metropolis. The patient, who belonged to the middle ranks of life, applied to a surgeon of one of the London hospitals, celebrated for his success as a lithotomist. A sound was introduced, and

came in contact with a stone at the neck of the bladder. The finger, introduced into the rectum, could readily feel the stone, but could not extend upwards to its limit: the quantity of urine retained in the bladder was extremely small. Under these circumstances the surgeon declined operating. unfortunate sufferer applied to another surgeon of first-rate eminence, and expressed his extreme desire to undergo the operation, though the danger was fully explained to him. So convinced was the operator of the immense size of the stone, that he deemed it necessary to practise a new operation, and, in order to enlarge the aperture, to carry his incision backward, so as to lay open the rectum. On introducing the forceps, a stone was extracted, which proved to be of a moderate size, but of a shape somewhat resembling the os calcis; the anterior part being fixed in the urethra, while the larger portion projected towards the rectum. It is well that surgeons should be aware of the deception to which they are liable in such cases, lest, on the one hand, patients be left totally without a relief, or, on the other, lest the danger of the operation be needlessly increased. Mr. Crosse relates several cases of this kind; one in which the operation was unattempted, and another in which it was attended with difficulty, in consequence of the operator being ignorant of the real position and form of the stone.

The circumstances which render the diagnosis of these cases so difficult, is the constant stillicidium and great contraction of the bladder: this we presume to arise from the extreme sensitiveness of that triangular part named by the French trigone vesical, upon which the stone rests. For, when the calculus occupies only the prostatic or membranous portions of the urethra, without extending into the bladder, the symptoms are by no means so urgent; as the following case, extracted from Mr. Crosse's work, will demonstrate.

"About eight years ago, I attended in consultation upon a patient aged about fifty, on account of sudden retention of urine, and with the finger in ano I felt a calculus, of the size of a healthy prostate gland, situated in the membranous and prostatic part of the urethra; the patient would not submit to any operation for the removal of the stone, and is now living and in pretty good health, having suffered only from occasional retention of urine or from a frequent call to evacuate it. In other similar instances I have known so little suffered, that the removal of this stone seemed not to be demanded." (P. 29.)

When, however, these cases are complicated with stricture, they may sometimes prove fatal; but such is not their general termination: Nature will sometimes accomplish a cure by the formation of an abscess, which bursts externally, and affords room for their exit; and in other instances the surgeon, by the aid of Weiss's forceps, is enabled to extract them by the urethra, or by an incision in the perineum, to remove them from below. This latter method is more especially applicable where the calculus has made its way into the membranous portion of the urethra, and is there arrested. Cases of this kind are on record, and are referred to by our author, where the operation has been so easy, that patients have performed it successfully on themselves.

The origins of urethral and prostatic calculi are different: the former, though found in the prostatic portion, are generally of renal formation; the latter arise in the ducts of the prostate gland, and do not depend for their increase on the contact of urine, though they sometimes pass backwards into the bladder, and become the nuclei of vesical calculi. The following passage contains an important fact, with reference to calculous concretions in the veins, hitherto unnoticed by English pathologists, which must not be confounded with

prostatic calculi, though of a similar composition.

"Concretions of another sort about the neck of the bladder ought to be noticed. In aged persons, particularly with hypertrophy of the prostate gland, a bladder diseased, and the veins about it and about the rectum varicose, concretions of phosphate of lime, varying in size from a pin's head to a kidney-bean, are often found in the veins; sometimes they present the appearance of a white pea, as in fig. 6, (b) of plate ii., and an inequality or projection is observable (c) answering to the surface by which the body adhered to the coats of the vein. These concretions have no connexion with the urinary or any other excretions, and should not be regarded as calculi; they are a morbid growth from the coats of the vein, to which at an early period they are invariably adherent, and a membrane covers them, upon the surface where not adherent. which I presume is the extended inner coat of the vein, the morbid growth originating in the outer coat. Fig. 6, (a) of plate ii, shews a portion of vein containing one of these concretions, and d, e, f, g, exhibit them of different shape and size; their chemical composition is chiefly phosphate and carbonate of lime, and they approach nearer to ossifications than to calculous concretions. I remember that Professor Meckel* has well represented them, but know of no English author from whom they have received the same attention." (P. 36.)

The chapter upon Calculi in the Urinary Bladder, and

[&]quot; Tabulæ Anatomico-Pathologicæ, auctore T. F. Meckel. Fasc. ii., tab. xiv., fig. 4, 5. Tiedemann, Otto, and Lobstein, have treated upon these concretions, and met with them in the veins of the uterus, vagina, and spermatic cord."

their pathological effects, contains little new general matter. For this, however, our author is not so much to blame as his predecessors, who, by their great attention to this part of the subject, have left but little to future investigators: we shall therefore confine our notice of this part of the subject to a single quotation.

"Stricture of the urethra is more often a cause than a consequence of stone in the bladder; but sometimes inflammation extends from this organ to the urethra, and severe permanent stricture is produced at the membranous part; at other times a stricture from inflammation is suddenly produced. A patient in advanced years suffered inflammation of the lining membrane of the bladder, apparently in consequence of numerous small concretions of lithic acid lodging in it, after descending from the kidney; the inflammation extended to the urethra; there was complete retention of urine, and difficulty in introducing an instrument. A surgeon, in rude attempts with the catheter, made a false passage anterior to the prostate, and the patient dying, I found the state of parts represented in plate xii., fig. 1." (P. 39.)

The plate displays a very narrow contraction of the passage along the membranous and prostatic portion of the urethra,

with a lateral false passage.

Our author has devoted a larger space of his work to the method of sounding for stone than is usually deemed necessary: this detail will, however, be prized by the practical surgeon, who is aware of the extreme difficulty of discovering small calculi or fragments in the bladder, or of distinguishing these cases from tumours of different kinds, that are not unfrequently found there, and occasion very similar symptoms. In order to exemplify this a case is related, in which our author operated upon a boy, under the supposition that a stone was present, but proved that the symptoms depended upon numerous polypoid growths from the inner surface of the bladder. It is with great reluctance that we abstain from quoting this case, on account of the great length at which it is detailed: we can assure our readers that it is highly interesting, not only from the presence of mind evinced by the operator, but from the honourable frankness with which the error, and its fatal consequences, are narrated. We were once present at an operation, where, in addition to the stone which was extracted, a small polypus was discovered at the neck of the bladder. This was removed by the operator with a pair of scissors, and the patient recovered. Had it been overlooked, and the wound been suffered to heal, the symptoms of stone might have remained, and the sound coming in contact only with the soft tumour, no operation might have been again attempted for his relief. This complication should warn surgeons never to remove the patient from the operating table, without examining, as far as is practicable, the inner surface of the bladder.

We shall make no apology to our readers for presenting

them with many of our author's directions for sounding.

After describing the shape of the sound, and directing that it should be of a moderate size, with a large wellpolished handle, he thus proceeds:

"Children are never sounded in the erect posture; but when you have to deal with an adult patient, it will be found advantageous to make the first examination in that posture; in doing this, you should, with as little preparation and alarm to the patient as possible, introduce the sound lightly and gently, with a very delicate hand, endeavouring to steal as it were through the passage, by employing scarcely more than the weight of the instrument to propel it along and elevate its extremity into the bladder; if the operation be thus feelingly and judiciously managed, in nine instances out of ten, when there is a loose stone of any considerable size in the bladder, it falls down to the neck of this viscus, and is felt on the sound first entering. By alternately depressing between the thighs, and elevating the handle of the curved sound, you vary the extent to which it projects into the bladder, and will often in this movement feel a grating of the calculus against the instrument; the impression thus obtained is usually obscure and seldom to be relied With the handle depressed more or less, and held centrally, answering to the median line of the body, you may jerk it upwards and backwards towards the rectum, when it will strike a stone lying in that direction, producing a sensible resistance and often also an audible sound, satisfactory evidences, when conjoined, of a calculus being present. You may give the same movement to the sound, with the handle inclined more or less to one groin, and thus explore each lateral, as well as the posterior part of the bladder. Should a stone not be felt under these movements of the sound, you may suspect it to be on the pubic or concave side of the instrument, when it will be felt by your drawing the instrument downwards and forwards, which movement should be performed first with the handle answering to the median line and more or less depressed between the thighs, and afterwards, with it inclined obliquely to either side, which will explore the lateral and anterior part of the cavity; if in any of these trials, the stone be felt, touching the concave side of the sound, you know it to be situated towards the os pubis; you may also, with the curved sound projecting considerably into the bladder, turn the handle to some extent upon its own axis, making its extremity describe a part of a circle, and sweeping the upper and lateral parts of the bladder. By a practised hand, the sound is in a short time made to perform these different movements, and the

object is, by a regular succession of them, to carry the sound to

every part of the vesical cavity.

"Where a careful sounding is required, the patient should be placed horizontally on his back; indeed the surgeon should always bear in mind how advantageous it is to vary the position of the patient, and how much may be gained by so doing. If, when the patient is standing, the stone be felt on the pubic side of the instrument, and when dorsally recumbent, you find the stone behind it, towards the rectum, you know it to be moveable and loose. The sound being in the bladder, the shoulders of the patient may be raised into the half-sitting posture, or they may be depressed greatly so as to have the pelvis on the top of an inclined plane and make the axis of the spine answer to an angle of forty-five degrees, this latter being the method to remove the stone from the neck of the bladder and carry it to the fundus; he may likewise be placed on either side, or upon his hands and knees with the face downwards; all these changes of position should be made after the sound is introduced; the last is particularly applicable to cases of enlarged prostate gland, behind which there is a cavity not accessible to the long curved sound by any movement that can be given to it; and you can only remove this defect by changing the situation of the stone in the bladder, which is accomplished by altering the position of the patient.

"Where the sound touches the stone in different directions, and is found to pass over a large surface of it, you may conclude it is of large dimensions; but when, under the same position of the body, you do not feel it repeatedly, on passing the sound to the same part of the vesical cavity, it is likely to be small." (P. 51.)

Our author insists on the propriety of examining by the rectum, and gives copious directions for the conduct of this part of the exploration. We think, however, that he attaches too much importance to it, as it is applicable only to young patients, in whom the stone may be easily detected and examined by the sound. He differs also from Sir Everard Home and Sir Benjamin Brodie, as to the utility of the gum elastic catheter, in affording evidence of the presence of a stone. Now, it is well known that the former of these surgeons preferred the gum catheter to any other instrument, and yet was eminently successful in detecting a calculus in the bladder; and we should therefore be inclined to doubt whether Mr. Crosse's opinion does not mainly depend upon his having but rarely employed it.

The chapter upon Extracting small Vesical Calculi by the Urethra contains much valuable information concerning the method of employing Sir Astley Cooper's instrument for this purpose. Our author prefaces his observations with a detail of the symptoms attendant on the presence of small calculi in

168

the bladder; and, as every year the diagnosis of these, in their earliest stages, becomes of more importance, we shall

quote the passage containing their description.

"Where symptoms of stone have not existed above two or three months, or have been absent for a time and suddenly returned in a severe degree, producing itching at the end of the penis, frequent painful micturition, and occasional retention of urine, we may suspect that a small calculus is present in the bladder. With a small stone, the patient is often free from all inconvenience for a day or two, and even a week or two, and then is suddenly seized with retention of urine and most distressing pain, from the calculus entering the commencement of the urethra. In the interval between these sudden and acute attacks, the patient experiences only a slight itching at the end of the penis, irritation about the neck of the bladder, and a more frequent and sudden call to pass urine than is healthy. On sounding at this early period, you will occasionally find such an audible click, or noise produced, when you strike the stone, as can be heard at a distance of several yards: and the evidence thus obtained, more audible than tangible, arising from a clear and sharp sound, I have experienced only when the stone is small." (P. 57.)

"Perhaps the best indication we can get, of a vesical calculus being of small size, is to have traced it, not long before, passing through the ureter from one of the kidneys; but this source of information is rarely afforded, and the surgeon must trust to, and form his judgment upon, the reported duration of the symptoms, the preceding and present degree of their intensity, and the evidence derived from sounding the bladder. If the symptoms have steadily persisted, in a severe degree, for six or eight months, if the concussion of walking or riding produce pain in the glans penis or occasionally render the urine bloody, if there be a burning heat at the end of the penis, continuing some time after each evacuation of the bladder, the stone may be regarded as of too large a size to be brought through the urethra, and the urethro-vesical forceps ought to be very guardedly, if at all, employed; and when sounding comes in support of the opinion that there is a calculus of considerable size present, as pointed out by the dull noise, firm resistance, and extent of surface touched, the urethro-vesical forceps should on no account be introduced." (P. 59.)

Excellent as is this description, we would advise our readers not to be content with it alone, but to peruse the account of the early symptoms of stone given by Baron Heurteloup, in his Principles of Lithotrity. We should ourselves feel inclined to quote them, were it not that we have still much matter before us, which requires to be considered at length.

Mr. Crosse's directions for the use of Sir Astley Cooper's instrument are excellent, and the case which he relates of the removal of nine calculi by the urethra embodies many practical hints as to the method of operating. We would direct the attention of surgeons to these, as the operation is not so simple, or so free from danger, as may be supposed. Many instances have come to our knowledge where operators have been foiled in their attempts; and even one which terminated fatally, from the violence employed in endeavouring to withdraw the stone, which lay far down between the blades of the instruments.

There is a modification of this operation mentioned by Mr. Crosse, on which we would venture a few observations, viz. drawing the stone into the urethra, cutting down upon it, and removing it through the wound. This is a good operation, within proper limits, and should be attempted wherever the stone is sufficiently small to enter the membranous portion of the urethra. It is then a safe and easy operation, and unattended with any permanent inconvenience. It may, however, sometimes happen that the stone will pass as far as the spongy portion: is it then to be removed by incision? Our author says yes, and has performed the operation. We, however, are inclined to differ from him, as an incision "just anterior to the scrotum" is frequently attended with troublesome hemorrhage, and followed by a fistulous opening, very We should rather recommend an attempt difficult to heal. to break the stone in that situation; or, that failing, to push it back into the bladder, and, introducing the screw lithotrite of Weiss, to draw the stone into the membranous portion, there crush it, and allow the fragments to be washed away by the stream of water.

We now arrive at the portion of the work devoted to the operation of Lithotomy, a word for which our author would substitute Litho-cystotomy; but, as we think his nomenclature is not likely to be generally adopted, we shall not enter into any disquisition upon the propriety of adhering to old names, which are generally understood. The method of performing the lateral operation with the straight staff having been strongly recommended to the profession, not only by Mr. Key's work, but by his skill and success, requires the consideration of every surgeon, before he decides upon any plan for his own practice; and, as Mr. Crosse coincides with that distinguished operator, it will perhaps not be out of place if we make some observations upon the comparative merits of the straight and the curved staff. The advantages of the

straight staff are thus stated by our author:

"The straight staff, in passing through the membranous part of the urethra, lifts it up from the rectum, pressing against the pubic 170

or superior surface of the passage, thus affording great protection against wounding the rectum; the reverse happens with the curved staff, its convexity pressing towards the rectum, and rendering it not easy always to avoid wounding it. The greatest gain from the straight staff is in the facility given to the third stage of cutting into the bladder, by the instrument answering to the median line at the same time that its groove is presented in the most favorable position, and by your having to cut in a straight direction; so that, getting down to the staff, you find this third stage converted into one plain continued incision, effected by carrying on the knife in the groove, as you would carry it along a common director, till satisfied that you have gone as deep as required, passing the prostate gland and just entering the bladder; you then enlarge the incision in withdrawing the scalpel." (P. 74.)

The removal of the urethra from the rectum, and the straight incision into the bladder, are the advantages proposed by the advocates of the straight staff; and to a beginner it may be doubtful whether such advantages are to be slighted. But, it may be asked, how often do experienced operators wound the rectum, or fail in cutting into the bladder. Did either of these accidents occur to the late Mr. Martineau, whose practice our author had such excellent opportunities of witnessing? or are they common among the numerous dexterous surgeons of our London or county hospitals? If not, the whole credit of the new operation must rest upon this single fact, that, to those who do not know how to operate, it presents fewer difficulties than the old plan in the third stage of the operation. On the other hand, the objections to it are numerous: First, the difficulty of introducing a straight instrument in many cases, especially those with a large prostate gland; and the mischief sometimes done to the parts by the violent dragging of such an instrument, when forced into the bladder. Secondly, that the surgeon must be prepared to perform the old operation, as, in the before-mentioned cases, the new is inadmissible; and he is therefore obliged to acquire the power of performing both, instead of one. Thirdly, the new operation substitutes mechanical facility for anatomical knowledge; since the straight staff, by removing the various structures from their natural position, places the scientific operator on the same footing as the more ignorant one, and does away with the necessity of studying the relative anatomy of the parts. Lastly, the straight staff cannot generally be brought in contact with the stone, nor retained there during the operation; so that the process of removing the stone from the bladder is rendered much more difficult; and, as far as our own experience goes,

this is the stage in which the young operator is most likely to be foiled, when he has no guide to the position of the stone. Such are briefly the objections to the straight staff: nor is it sufficient answer, that, in the hands of a Key or a Crosse, it is eminently successful, unless, at the same time, it be conceded that the cutting gorget (the use of which is now almost abandoned,) is to be recommended on account of the skill of its inventor, Sir Cæsar Hawkins; or that all modern improvements are to be abandoned in favour of the apparatus of Cheselden, the most fortunate operator, perhaps, that ever existed.

But enough has been said upon this subject; let us now follow our author to some of the steps of the operation; and first we shall present our readers with his directions for holding the staff. He says (and we think with the greatest truth,) that the operator is dependent for his success on the staff holder. This cannot be impressed too strongly upon the minds of those who are called upon to assist at operations for the stone; and it is to be regretted that surgeons are too often content with studying how to operate themselves, to the total neglect of that equally important, though less brilliant, part of their professional duties, which consists in assisting another. Our author appears to have felt the want of such assistance, and he therefore is minute in his directions.

"The staff holder is the operator's main assistant, who should previously understand his views, and sympathise with him in every step of the operation. I have felt myself so dependant on such an assistant, that, preferring my fate to be in my own hands, I have sometimes wished to imitate Pouteau, by holding the staff for myself; but I have never undertaken to do so. This instrument must be held not forcibly, but lightly and as if suspended in air, since pressing it towards the sacrum to steady it, or pulling it towards the pubes, will equally tend to embarrass the operator and create mischief; it should be kept in the same relative position, in regard to the patient, as that in which it was received from the hands of the operator. Besides the danger of pressing the staff towards either rectum or pubes, its holder, in endeavouring to make its convexity prominent in the perinæum, may cause its extremity to desert the bladder, so that it reach no deeper than the prostatic part of the urethra. By the unsteadiness of the patient, the staff may be moved irregularly from side to side, or backwards and forwards in the urethra; to prevent all this, the patient's pelvis must be kept steady, and if it move, there must be a corresponding movement of the staff, that it may retain the same relative position in regard to the patient's body." (P. 72.)

After describing the mode of making the external incision,

and of cutting down upon the staff, he proceeds to show how the incision should be made into the bladder. Now, our readers are aware that surgeons of the present day differ much as to the size of this incision; some thinking, with Sir Benjamin Brodie, that it should be small, and that the prostate should be split by the blunt gorget; others, with Mr. Fletcher, of Gloucester, that it should be large, as any sized incision is safer than violence. Our author seems to hold a middle course: he recommends that it should be free, but speaks also of its being requisite to dilate the wound generally, in order to withdraw the stone. It is probable that our author is nearer to the truth than either of the others, as it appears, from a note, that the last thirty-eight patients operated upon at the Norwich hospital in this method have all recovered, and that it had the sanction of the late Mr. Martineau, who in this operation has had few rivals. author thus sums up his directions.

"In recapitulating what belongs to this part of the operation, which I have attempted, however imperfectly, to describe, the best rules I can lay down are, to make the deep incision, through the prostate gland and neck of the bladder, of moderate extent, so that the forceps may readily enter, to dilate a little with the finger and forceps, before grasping the stone, to act slowly in the extraction, that the wound may still further dilate, and to enlarge the wound without hesitation, and to the requisite extent, if you find great resistance to the passage of the foreign body to be removed; thus, you will have the best chance of accomplishing a safe, though you may fail to have a rapid and brilliant operation. The quickest operations of litho-cystotomy, in my experience, have not usually proved the most successful. The dissecting-room rule, which all young operators are ready to put in practice, of cutting freely so as to effect a rapid operation and meet with little or no resistance to the extraction of the stone, is not sanctioned by the experienced and practical teacher. Gentleness and precision ought rather to be studied than great expedition. Le Cat cut about half a dozen patients in twice as many minutes, and, it is said, lost nearly all of them! At any rate, whether the operator cut much or little, let him not use the forceps boisterously, but temperately and with gentleness, for violence, if it do not produce immediate laceration of soft parts, will be sure to bring on subsequent inflammation. tumefaction, and sloughing.

"In children the parts at the neck of the bladder dilate so readily, and bear to be dilated so well, that if the operator can get the forceps into the bladder, and the stone be of moderate size, he may remove it safely, although the incision have failed to reach so deep as it ought; but in adults, and particularly in the aged, the soft parts will not so yield, and force applied will lacerate, creating fatal injury." (P. 77.)

The most frequent cause of death after lithotomy is undoubtedly diffuse inflammation of the deep cellular tissue, from infiltration of urine. This is, however, a discovery of modern times, and the treatment which it demands is not generally understood. Bleeding is, we believe, fatal in such cases, unless the disease has gone so far as to excite peritoneal inflammation, which must be considered as the second stage. Even then, however, it should only be local; though perhaps it matters but little what is done, as the patient almost invariably dies. Generous diet, and a free outlet for the sloughing cellular membrane, are the only means worthy of trust. For some excellent observations on the aftertreatment of the wound, we must refer our readers to the work itself.

The last chapter of the work is upon "Hemorrhage after Litho-cystotomy," and the principal part of its contents apply to arterial hemorrhage. With regard to the treatment of this unfortunate accident, our author recommends that, if a vessel of any size be wounded in the first two stages of the operation, it should be secured by a ligature; but, if in the third, the remedy must be suited to the particular vessel. If it be the artery of the bulb or the internal pudic, these may also be reached with the tenaculum, and tied like the others, with this single precaution, that, in the case of the latter, both ends of the vessel must be secured, in order to stop the bleeding effectually. But, should the vessel be situated deep down, on the inner surface of the levator ani, if pressure upon the internal pudic artery be insufficient to command it, our author recommends that the wound should be plugged with lint around a hollow canula. He confesses, however, that this method is dangerous, as the blood sometimes flows into the bladder, and occasions serious symptoms. Let it be permitted to us to recommend a method, which we have seen employed by Sir Benjamin Brodie, with the happiest effects, as more easy of application, and unattended with danger.

A caoutchouc female catheter should be introduced through the wound into the bladder, in order to give free vent to the urine, while an assistant, with his finger in the rectum, makes pressure on the different parts wounded, until he discovers the point at which the bleeding takes place: of course, the pressure must be continued until all hemorrhage has ceased. We have never seen this plan fail, and it has none of the disadvantages which accompany violence to the wounded surface.

Though we have now given rather a copious abstract of the work, we should do but scanty justice to its merits, were we

to conclude without mentioning the plates. Their great number, their large size, and the accompanying explanations, contribute to make them, perhaps, the best representations extant of diseases of the bladder. He who shall carefully study them will reap an ample reward for his labour. sides these plates, there are two appendices, which did not form part of the prize essay: the former consists of cases which have occurred under our author's notice, and which are of the highest interest; the latter contains tables of the result of the operation of lithotomy at the Norfolk and Norwich hospitals. Mr. Crosse has presented us with a list of one hundred fatal cases of lithotomy, showing the age of the patient, the weight of the calculus, and the interval between the operation and death. If he would add a sketch of the cause of death, it would enable us to judge accurately of the period at which a patient escapes certain dangers, and becomes liable to others.

The work concludes with a catalogue of the treatises upon Gravel, Stone, and Lithotomy, published in different ages and countries, and of essays or notices referring to those subjects in many periodical works. Of this part we can say nothing further than that it is worthy of the author, who must have perused no inconsiderable portion of the books to which he refers, in order to enrich his text with so many references to parallel cases. In short, we may sum up by observing, that experience and study have done their utmost for this work, and that its form alone will prevent its circulation from being equal to its merits.

The Philosophy of Health; or, an Exposition of the Physical and Mental Constitution of Man, with a View to the Promotion of Human Longevity and Happiness. By Southwood Smith, M.D., Physician to the London Fever Hospital, &c. Vol. I.—London, 1835. 12mo. pp. 408.

The rapid multiplication of hygienic works has certainly been accompanied of late by an improvement in their quality, and we have now to congratulate the public on the appearance of a volume of this kind, from the pen of so accomplished a physician as Dr. Southwood Smith. The book is written for the laity, and, though we do not mean to fall into the agreeable hypocrisy of supposing that every practitioner is perfectly acquainted with every thing contained in it, still it would be injudicious to fill our pages with elementary matter, and we must therefore content ourselves with a very brief notice of this laudable work.

Dr. Smith, we observe, from the dedication, is one of those who suppose quarantine to be "monstrously absurd." We would refer those who are willing to see the arguments on the other side admirably stated, to Dr. Gooch's paper appended to his treatise on the Diseases of Women.

Perhaps the most interesting chapter in the work is the fourth, which treats of the relation between longevity and happiness, and enters at some length into the statistics of mortality in ancient and modern times. An extract will show

the tone of this part of the treatise.

"Hitherto, in all places which man has made his abode, noxious agents have been present which act injuriously upon his body, tending to disturb the actions of its economy, and ultimately to extinguish life. All these noxious agents, of whatever name or quality, may be included under the term Causes of Mortality. Inherent in the constitution of the body are conservative powers, the tendency of which is to resist the influence of these causes of mor-The actual mortality at all times will of course be according to the relative strength of these destructive agents, and the relative weakness of these conservative powers. There are states of the system tending to enfeeble these conservative powers. Such states become tests, often exceedingly delicate, of the presence and power of the destructive agents to which the body is exposed; and such, more especially, are, the states of parturition, infancy, and sick-During the prevalence of these states, in which the conservative powers of the body are weak, life is destroyed by causes which do not prove mortal in other conditions of the system. Accordingly, in every age and country, the rate of mortality among its lying-in women, its infants and its sick, may be taken as a measure of the degree in which the state of the whole population is favourable or unfavourable to life.

"The change that has taken place in the condition of lying-in women during the last century in all the nations of Europe cannot be contemplated without astonishment. The mortality of lying-in women in France, at the Hôtel Dieu of Paris, in 1780, is stated to have been one in 15. In 1817, for the whole kingdom of Prussia, including all ranks, it was one in 112. In England, in the year 1750, at the British Lying-in Hospital of London, it was one in 42; in 1780, it diminished to one in 60; in the years between 1789 and 1798, it further decreased to one in 288; in 1822, at the Lying-in Hospital of Dublin, it was no more than one in 223; while during the last fifteen years at Lewes, a healthy provincial town, out of 2410 cases there have been only two deaths, that is, one in 1205. There is no reason to suppose that the mortality in the state of parturition is less at Lewes than in any other equally

healthy country-town in England.

"Equally striking is the proof of the diminished violence of the prevalent causes of disease and death derived from the diminished mortality of children, the vital power of resistance being always comparatively weak in the human infant, and consequently the agents that prove destructive to life exerting their main force on the newborn, and on those of tender age. From mortuary tables, preserved with considerable accuracy at Geneva since the year 1566, it appears that, at the time of the Reformation, one half of the children born died within the sixth year; in the seventeenth century, not till within the twelfth year; in the eighteenth century, not until the twenty-seventh year: consequently, in the space of about three centuries, the probability that a child born in Geneva would arrive at maturity has increased fivefold. In the present day, at Ostend, only half of the newborn children attain the age of thirty; whereas, in England, they attain the age of forty-five.

"No less remarkable is the progressive diminution of mortality among the sick of all ages. Hippocrates has left a statement, which has come down to our times, of the history and fate of forty-two cases of acute disease. Out of this number, thirty-seven were cases of continued fever; of these thirty-seven febrile cases. twenty-one died, above half of the whole. The remaining five were cases of local inflammation, and of these four were fatal: thus, of the whole number of the sick (forty-two), twenty-five were lost. Now, even in the Fever Hospital of London, to which, for the most part, only the worst cases that occur in the metropolis are sent, and even of these many not until so late a period of the disease. that all hope of recovery is extinct,—the mortality rages in different years from one in six to one in twelve; and, for a period of ten consecutive years, it is no more than one in seven; while, in the Dublin Fever Hospital, where most of the cases are sent very early, the average mortality, from 1804 to 1812, was one in twelve. (P. 138.)

We trust that our author will not take us for croakers, if we doubt the strength of the position which he has taken up at the beginning of this quotation. He asserts that, "in every age and country, the rate of mortality among its lyingin women, its infants, and its sick, may be taken as a measure of the degree in which the state of the whole population is favourable or unfavourable to life." Of course, nobody would deny the proposition, if by sick the sick of the whole community were meant; but our author evidently means the sick in hospitals. How does the case stand then? At St. Petersburg the mortality in the Imperial Hospital is one in four and a half, at Göttingen it is one in twenty-one. (P. 141-2.) Surely the chances of life do not differ in the same proportion in these two towns. Nor does the progressive diminution of mortality in the same hospital show an equally great diminution in the national mortality; for it is obvious that the directors of hospitals are more accessible to knowledge than the mass of the community. St. Thomas's and St. George's are scoured and whitewashed, while St. Giles's

laughs scavengers and cholera committees to scorn.

We must also take the liberty of correcting an error at the end of the quotation. It is the identical mistake of Sir G. Blane's, which we set right on a former occasion, (Med. Quart. Rev., vol. iii., p. 150.) He supposed that forty-two cases of acute disease, narrated by Hippocrates, of which twenty-seven terminated fatally, might be taken as a fair average of his practice, and would therefore show the great superiority of ours. But what reason Sir Gilbert or our author could have for supposing these to be average cases, does not appear. Dr. Abercrombie, in his masterly works on the Diseases of the Brain, and of the Abdominal Viscera, has detailed an immense majority of fatal cases; yet it would be unreasonable to deduce as a conclusion, that one of the first physicians of the age loses nineteen out of twenty patients. The plain fact is, that he who possesses the "fiduciam magnarum rerum" often selects the most instructive, i. e. the most unsuccessful cases for comment; and this whether he is of Cos or of Edinburgh.

One more extract, and we must have done: it is from the

chapter on the Circulation.

NO. VII.

"That the arterial tubes do possess and exert a truly vital power, modifying the current of the blood they contain, is indubitably established.

"1. If in a living animal the trunk of an artery be laid bare, the mere exposure of it to the atmospheric air causes it to contract to such a degree, that its size becomes obviously and strikingly diminished. This can result only from the exertion of a vital property, for no dead tube is capable in such a manner of diminishing its diameter.

"2. If during life an artery be opened and the animal be largely bled, the arteries become progressively smaller and smaller as the quantity of blood in the body diminishes. If the bleeding be continued until the animal dies, and the arteries of the system be immediately examined, they are found to be reduced to a very small size; if again examined some time after death, they are found to have become larger, and they go on growing successively larger and larger until they regain nearly their original magnitude, which they retain until they are decomposed by putrefaction.

"3. M. Poiseuille distended with water the artery of an animal just killed. This water was urged by the pressure of a given column of mercury. The force of the re-action of the artery was now measured by the height of a column of mercury which the water expelled from the artery could support. It was found that the artery reacted with a force greater than that employed to distend it, and

greater than the same artery could exert some time after death; but since mechanical re-action can never be greater than the force previously exerted upon it (293), it follows that the excess of the re-action indicated in this case was vital.

"4. If an artery be exposed and a mechanical or chemical stimulus be applied to it, its diameter is altered, sometimes becoming larger and sometimes smaller, according to the kind of agent em-

ployed.

"299. Any one of these facts, taken by itself, affords a demonstration that the arterial trunks and branches are capable of enlarging and diminishing their diameter by virtue of a vital endowment. There is complete evidence that the exertion of this vital power on the part of the arterial trunk is not to communicate to the blood the smallest impulsive force; the engine constructed for the express purpose of working the current generates all the force that is required; but the labour of the engine is economized by imparting to the tubes that receive the stream a vital property, by which they wholly remove the physical obstructions to its motion." (P. 394.)

An Inquiry into the Nature and Causes of Lateral Deformity of the Spine; in reference, more especially, to the Pernicious Effects of certain Moral and Physical Influences, resulting from the Modern System of Female Education. By Edward W. Duffin, M.D. Second Edition.—London, 1835. 8vo. pp. 94.

This is a work, of which the first edition was reviewed a few years ago in the London Medical and Physical Journal. A clever writer once concluded a letter by apologising for its length, and declaring that he had not time to make it shorter: Dr. Duffin, profiting by this hint, has employed part of the intervening time in curtailing his book, and has produced the sensible and well-timed essay before us.

The absurdities systematically committed in the education of young females, as far as regards their physical development, may be conveniently discussed under three heads:

Dress, Studies, and Amusements.

Dress. Dr. Duffin inveighs against tight stays, and homicidal lacing, but seems inclined to admit the use of well-made corsets, without back-bones or busks. He allows the former to be bad, but would let the minor evil pass for a good. To us it seems that the difference is but in degree, and the question is, whether the intercostals are to be wholly thrown out of work, or are to get a job now and then. This is certainly the head and front of the offences of the age in point of dress, and makes all other errors in costume; for, as the poet thought it natural that those who hated not

Bavius should admire the verses of Mævius, so it is reasonable that those who condemn one half of the human race to perpetual dyspnæa, should indulge in corn-creating shoes,

and look with complacency on asphyxiating stocks.

On this point also our author is too lenient. He animadverts, with just severity, on the want of exercise at those schools where, as in the instance cited by Dr. Forbes, (p. 57-8,) the girls pass twelve or fourteen hours at their studies; but he does not remark, that these book-mills or music-factories make their victims silly as well as diseased. There is a sort of retributive justice in the fact, that those who would barter health for accomplishments are disappointed; and, like the sorcerers of the old romances, in their contracts with the enemy of mankind, though they pay the

enormous price, they are balked of the trivial reward.

Amusements. Under this head Dr. Duffin has some judicious observations, which will please many of our readers even more than ourselves; for, in the matter of sports and games, we confess ourselves staunch conservatives. taste on these points is almost as antique as that of Martinus Scriblerus, who refused to sanction any game less than two thousand years old; and we should prefer the game of ball, as played by Nausicaë and her maids, in the Odyssey, to "the author's improvement on Dodd's ball exercise," as lithographed at page 65. The good old constitutional sports have a smack of youth and joyousness about them; while many of the modern substitutes have so constrained an air, that they seem the invention of some powdered and spectacled philosopher, and resemble a remedy rather than an amusement.

Our author says that, when children lie two in a bed, they should occasionally change sides, as lying always on the same side favours the production of crooked spine in the predisposed. How this may be, we know not; but we recollect that the same thing is asserted by Darwin, who, notwithstanding his airy theories, was certainly a diligent observer of nature.

We strongly recommend this treatise to those who are engaged in education; and would suggest that girls, when first going to school, instead of giving their instructress the customary silver spoon, should present her with a copy of this essay: it may be worth its weight in gold to her.

Anatomical Description of the Parts concerned in Inguinal and Femoral Hernia. Translated from the French of M. Jules Cloquet; with Lithographic Plates from the original Etchings, and a few additional Explanatory Notes. By Andrew Melville M'Whinie, Assistant Teacher of Practical Anatomy at St. Bartholomew's Hospital.—London, 1835. Royal 8vo. pp. 50.

This is a useful book, and, though perhaps scarcely minute enough in some parts for modern wants, should yet be carefully perused by the surgical student. The following quotations may give some notion of its manner.

"The fascia transversalis, then, is an aponeurosis, which, varying* in thickness, arises from the posterior edge of Poupart's ligament, from the fascia iliaca, from the external edge of the tendon of the rectus muscle, and is continuous above with the cellular tissue situated upon the internal surface of the abdominal muscles; inferiorly, and towards the middle of the crural arch, it forms a membranous canal, which commences by a wide opening, directed posteriorly and externally, and of which the internal edge is much the stronger: this canal descends around the spermatic vessels, to compose their proper sheath. The fascia transversalis supports the peritoneum behind, and is separated from it by the epigastric artery; + in front it corresponds with the transversalis muscle, and with the aponeurosis, of which it is often so intimately connected, that it can only be distinguished from it by the different direction of its fibres." (P. 16.)

"The inguinal canal is wider, and its apertures are much more distinct in the male than in the female. Its direction, which usually corresponds with that of the crural arch, is also a little more oblique in the former than in the latter. The occurrence of inguinal hernia is influenced by the differences in the dimensions of the inguinal canal, and which depend on the age and sex. In the numerous measurements which I have made of the parts which relate to this subject, I have obtained very nearly the same results

"The fascia transversalis is in some individuals extremely thin; in others, towards the rectus muscle, it is composed of very strong bundles of fibres, so disposed, that open spaces, varying in form and number, are left between them.

† "The fascia transversalis possesses the greatest strength between the superior opening of the inguinal canal and the rectus muscle. In this situation it is opposite to the posterior part of the inguinal ring, from which it is separated merely by the thin fibres of the internal oblique and transversalis, which are attached to the pubes.

† "If a horizontal line be drawn on a level with the pubes, and an oblique one from the symphysis pubis to the anterior superior spine of the ilium, it will be found that, in the female, these two lines will meet at a more acute angle than in the male, and which depends on the less degree of elevation and the greater breadth of the pelvis in the former: in the female, also, the crural arch is more horizontal. This difference, however, is not striking in many individuals."

as those published by Astley Cooper, in the second part of his Treatise on Hernia.

	MALE.	Inches.
"From the symphisis pubis	Inches.	Inches.
to the anterior superior spine of the ilium	53	6
to the tuberosity of the pubes	$1\frac{1}{8}$	1 3
to the inner margin of the external abdominal ring	07	1
to the inner margin of the superior aperture of the		
inguinal canal	3	31
to the middle of the iliac artery	31	33
to the middle of the iliac artery to the middle of the iliac vein	2 5	33 23 24 24
to the origin of the epigastric artery	3	21
to the point where the epigastric artery passes on		
the inner side of the superior opening of the		
inguinal canal	23	27"
	- 7	(P. 22.)

Cloquet says,-

"The crural canal presents three walls: the anterior extends from the crural arch to the upper part of the opening for the vena saphena, (Plate II. 4,) and is formed by the superficial layer of the fascia lata, which ascends in front of the femoral vessels; it is much stronger externally than on the inner side, where it is continuous with the deep layer of the same fascia, and with Gimbernat's ligament." (P. 36.)

His translator adds,

"The anterior boundary or wall of the crural canal is described by Sir Astley Cooper as being derived from the fascia transversalis, which is continued, he says, downwards beneath Poupart's ligament. It has been named Fascia Cribrosa, in consequence of its being perforated by small holes for the passage of blood-vessels and lymphatics. See Plate II. 4.—(P. 36, note.)

On this point we rather agree with Sir Astley than with the French anatomist, and are consequently of opinion that the plate in which the latter has embodied his description is not conformable to nature.

The Principles of Physiology applied to the Preservation of Health, and to the Improvement of Physical and Mental Education. By Andrew Combe, M.D., Fellow of the Royal College of Physicians of Edinburgh. Third Edition, revised and enlarged.—Edinburgh, 1835. Post 8vo. pp. 404.

We are glad to find that the favourable opinion which we gave of the first edition of this work, in our fourth Number, has been confirmed by critics and readers; and that a third edition has, like its predecessor, afforded Dr. Combe the opportunity of adding and correcting. The book is written

in the plain and unpretending style which befits a man who is discussing important subjects with earnestness and sincerity. The following extracts consist in part of the matter which has been added since the original publication of this useful compendium.

"I have often had occasion to remark the powerful influence which free perspiration from natural causes has in relieving acidity in the stomach and promoting digestion, and the fact that acidity is most prevalent when the skin is most inactive; and have thereby been led to prescribe with advantage the frequent use of the tepid and vapour bath in calculous and other complaints arising from excess of acid. In accordance with the same principle, we find Lord Byron noting in his journal (28th March, 1814), that after having, when previously very unwell, 'sparred with Jackson ad sudorem,' he felt 'much better in health than for many days,' and remarking, that 'the more violent the fatigue, the better his spirits for the rest of the day,' and this too at a time when he was deriving little relief from his favourite remedies, abstinence and soda water.

"These results seem to corroborate the doctrine of M. Donné, that in the healthy state an acid humour is secreted from the whole surface of the skin, while the mucus secreted from the digestive canal is everywhere, except in the stomach, of an alkaline nature. The subject is still not very clear, but it deserves the most careful examination." (P. 108.)

"So little, indeed, are we taught to think of the nature and wants of the human constitution, that in Edinburgh, and almost every large town, we have instances of large public rooms, capable of holding from 800 to 1000 persons, built within these few years, without any means of adequate ventilation being provided, and apparently without the subject having ever cost the architect a thought! When these rooms are crowded and the meeting lasts for some hours, especially if it be in winter, the consequences are sufficiently marked. Either such a multitude must be subjected to all the evils of a contaminated and unwholesome atmosphere, or they must be partially relieved by opening the windows, and allowing a continual stream of cold air to pour down upon the heated bodies of those who are near them, till the latter are thoroughly chilled, and perhaps fatal illness is induced; and unfortunately, even at such a price, the relief is only partial: for the windows being all on one side of the room, and not extending much above half-way to the ceiling, complete ventilation is impracticable. This neglect is glaringly the result of ignorance, and could never have happened, had either the architects or their employers known any thing of the laws of the human constitution; and yet it is still doubted whether it be prudent or right to teach the intelligent portion of the community any knowledge of the structure and uses of their own organs!

"These remarks have been fully verified since they were first

printed. During the last winter an unusual number of courses of popular lectures were given in Edinburgh, many of which were very fully attended. From the utter impossibility of safe ventilation, those courses which were most crowded, were accessible only at such an expense of health and suffering on the part of their less robust auditors, as served to neutralize, in a great measure, the advantages which might otherwise have been derived from them. Several of my own friends were compelled to discontinue their attendance, while others persevered, although at the certain cost of a severe headach. This nuisance is the more to be regretted, as it has arisen solely from the architects and the public not having been sufficiently alive to the importance of procuring that prime necessary of life, pure air; and not at all from any difficulty of obtaining it, which could not at the first have been easily overcome." (P. 230.)

Transactions of the Society for the Encouragement of Arts, Manufactures, and Commerce, for the Session 1833-1834; being Part I. of Volume L.—London, 1834. 8vo. pp. 238.

This is an interesting volume, but the major part of it is, of course, alien to our Journal. Here and there, however, points are treated of, not unsuited to a Medical Review. We will cull a few of these for the gratification of our readers.

Mr. Webster has communicated an account of the effect produced on potatoes by immersion in ammoniacal water, or in brine. The potatoes are to be immersed for four or five days in a solution containing an ounce of liquor ammoniæ to a pint of water: this kills the germ, without spoiling the tuber as an article of food. This is a great advantage, when it is desired to export them to tropical climates, or use them in long voyages. If the immersion is extended to three weeks,

"The potato becomes tough and shrivelled while in the liquor, and, when dried by exposure to the air, assumes quite a new form, as evidenced by the specimens transmitted. The potato appears consolidated, and the qualities of the potato are greatly lost; for, on boiling, it assumes the appearance of sago or starch, yet still firm, and retaining its form. But, if used in its dry and uncooked

state, it has a mealy flavour, and the properties of corn.

"There is no chemical change effected on the potato, but merely a mechanical consolidation and extraction of moisture; for precisely the same effect may be produced by immersing potatoes in strong solution of salt and water, taking great care to remove, by subsequent ablution, the whole of the salt; and this requires some time, and repeated changes of water. There is a small packet of potatoes consolidated by salt and water, and some of the meal produced therefrom. This mode may perhaps be found applicable to the conversion of refuse potatoes into food for cattle or pigs, being sweet, good, and wholesome, and very nutritious, dry diet. The mode is cheap, and within the reach of every one.

"The hydrate of potato-starch forms a very tolerable tapioca for puddings, of which I forward a specimen." (P. 23.)

Mr. T. N. R. Morson, on examining some English opium rewarded by the Society, found it "very inferior in strength to Turkey opium, and not unlike some of the bad varieties of Egyptian: it contains codeine, and a larger proportion than usual of meconic acid. Twenty ounces avoirdupois of the dry opium contain

384 grs. of pure morphia, 220 grs. of narcotine." (P. 25.)

Captain Bagnold, R.N., has invented an anatomical puncturing forceps, for preventing accidents in sewing up bodies after post-mortem examinations. He says,

"The forceps are to be held in the left hand; the lower or projecting jaw pushes back the fat under the skin, and, when the instrument is closed, a puncture is made through the integuments. A slight pull by the hand of the operator enlarges the puncture sufficiently to allow the passage of a blunt needle, instead of a pointed one. The instrument is suffered to expand by means of its spring; and, a hold being again taken on the opposite flap of the incision, the ligature is again passed; and the operator may place the stitches within one eighth of an inch of each other, if he thinks it requisite, without the necessity of once bringing his fingers in contact with the subject, and in half the time that it can be done by the needle as hitherto used. A veterinary surgeon, to whom I have shown it, is of opinion that it is admirably adapted for sewing up incised wounds in horses and other cattle, whose strength and restlessness renders the operation difficult with the usual needle." (P. 65.)

We have not seen these forceps, but the recommendations of Mr. Lane, the well-known anatomist, and Mr. Hutchins, the able apothecary of St. George's Hospital, which are appended, will be certain to secure it a favourable examination from the profession.

Mr. Forster has made an improvement in trusses, which is stated to consist in "the insertion of a spiral spring, acting by compression, at the base of the strap, whereby the instrument adapts itself to the varying diameter of the part round which it is applied, and thus preserves an equal pressure on the pad. It has been applied with signal advantage to persons in the habit of raising great weights, such as millers' men, to whom the common truss soon ceases to afford any support." (P. 68.)

ORIGINAL COMMUNICATIONS.

On the Causes of some of the Symptoms which attend Diseases and Injuries of the Brain. By Mr. Mayo.

(Read before the College of Physicians.)

One of the principal objects of the science of medicine is to obtain accuracy of diagnosis. Now, accuracy of diagnosis, it is evident, cannot exist, unless the causes and mode of production of the symptoms of disease are correctly known. But the symptoms of disease are the external signs of disordered actions of the bodily organs. The inquiry into their nature is therefore a part of physiology,—it is the physiology of disease; and, as morbid anatomy is based upon healthy anatomy, so is the physiology of disease built upon, or elucidated by, the physiology of health. In each case the improvement of the one branch of knowledge is almost a necessary preliminary to the improvement of the other; and accordingly it has always happened that, whenever any important advance has been made in the study of healthy actions, the introduction of more just and accurate views of their pathology has followed.

The functions of the nervous system have received striking elucidation from the labours of modern physiologists: its pathology, therefore, is probably on the eve of considerable improvement. But the physiology of the nervous system has not been studied with equal success in all its parts. remain in the same ignorance as formerly of the functions of the hemispherical masses of the enkephalon, while the offices of the medulla oblongata, of the spinal marrow, and of the nerves, have been made out with a remarkable degree of precision. This consideration may be of use in directing our pathological inquiries. It is likely that something may now be determined as to the disorders of those mental functions which are proved to have their seat in the latter parts, although it may be hopeless at present to speculate upon the symptoms of disordered actions, which we only obscurely guess to have their immediate seat in the brain.

The functions which have their physical organs in the medulla oblongata, the spinal marrow, and the nerves, are sensation, perception, the commonest instinctive impulses, and volition. The principal facts that are known upon this subject may be explained under three heads.

1. It is presumed that the mental functions enumerated are perfected in the organs above assigned to them, upon the

186

ground that, in the higher animals, and even in the human species, those mental functions have been displayed in cases. where, either from congenital deficiency, or through removal by design or accident, the hemispherical masses of the enkephalon have been wanting. This conclusion is of such magnitude and importance, that it may appear to some present desirable to have the evidence repeated, on which it rests. A single instance, which I will select in illustration, is so complete as to have the force of an experimentum crucis upon the points before us: nevertheless, if it stood alone, the conclusion to which it leads is so marvellous and unexpected, that one would almost doubt the accuracy of the observations recorded in it. They are, however, borne out and confirmed beyond the reach of question by recent experiments. The instance to which I allude is contained in the history of an acephalous child, an account of which was communicated by Mr. Lawrence

to the Medico-Chirurgical Society.

The child had neither cerebrum nor cerebellum; but the spinal marrow and medulla oblongata, with the nerves which rise from them, were perfect. It lived four days. During its brief existence, it manifested sensation, perception, the usual instincts of a newborn infant, and volition. It moved briskly at first; when food was put into its mouth, it swallowed it; it breathed naturally; it voided fæces, and passed urine twice on the first day, and once a day afterwards. This child gave evidence of the same mental affections as ordinary newborn infants display. It is impossible, I think, to doubt, either that the usual mental affections of a newborn child really occurred in it, or that the parts of the nervous system, which alone this infant possessed, were sufficient for these functions; or that, being sufficient in this instance, they are sufficient for the same purposes in others. The crowning masses of the enkephalon, which this infant wanted, may be presumed to be the seat of those higher functions, which are developed in human beings as life advances.

2. The medulla oblongata and spinal marrow are an aggregate of many organs. They consist of several segments, each of which originates one or more pairs of nerves, that are distributed each to a corresponding segment of the frame, and are to a certain degree independent of the others; however, it may be necessary for the ordinary purposes of life and thought that they should be all connected and continuous. In each of these segments is the apparatus for sensation, instinct, and volition, adapted to the segment of the frame which it supplies

with nerves.

In proof of the correctness of this position, I shall again

bring forward a single instance; the most striking, indeed, that I have met with, but to which it would be easy to add

others nearly as conclusive.

I made the following experiment upon the head of a bird, which, it is to be observed, retains a kind of vitality for a short time after its separation from the body. In the head of a decapitated pigeon, I exposed the brain, and then removed, by successive slices, the cerebrum, the cerebellum, and the medulla oblongata, leaving within the head nothing but the optic tubercles, and the second and third pairs of nerves. I then divided the optic nerves. The optic tubercles thus alone remained of the whole encephalon, and were connected to the eyes by the third nerves alone. I then repeatedly pricked the stump of the optic nerves which projected from the optic tubercles: the injury was followed each time by a sudden contraction of the pupils.

I infer from this and similar experiments, that when an impression is made upon a nerve of sense, and communicated by it to the organ in which that nerve arises, that organ, or segment of the spinal marrow or medulla oblongata, is sufficient in itself to originate the instinctive impulse, which determines along the motor nerve the influence to motion. The medulla oblongata and spinal marrow consist of many such segments, independent of each other in one sense, in another materially dependent, and fitted and intended to co-

operate.

3. The nerves are media of transmission only. In reference to consciousness, they form two classes, one for sensation, the other for motion. The experimental evidence adduced by Sir Charles Bell, M. Magendie, and in part by myself, in proof of this statement, is so generally known as not to require to

be repeated on this occasion.

The preceding physiological principles being admitted, I propose to apply them, with others to which it may be necessary to refer, in explaining some of the symptoms of impaired voluntary motion and sensation, which are attendant upon lesions of the brain; or I shall endeavour to answer the following questions:

1. In what manner, or through what kind of influence, does

a lesion of the brain produce palsy and numbness?

2. How does it happen that a lesion of one side of the brain invariably produces palsy of the opposite side of the body?

3. Why, in total hemiplegia, is the palsy of the leg less complete, and capable of being more quickly recovered from,

than the palsy of the arm?

4. Why, in a slow attack of palsy, are the weakness and numbness first felt in the hands and in the feet; the parts of the limb nearest the trunk being the last affected?

5. Why is muscular palsy more frequent than loss of sensi-

bility, or anæsthesia?

1. In what manner, or through what kind of influence, does a lesion of the brain produce palsy?

There are two modes of explaining the occurrence of palsy

as a consequence of cerebral lesion.

One is, to suppose that the palsy results from the withholding, or interruption, of the usual supply of nervous energy derived from the brain. Nor could this hypothesis be objected to, if the palsy were experienced in continued or deliberate action alone. It might then be plausibly argued, that as the brain, in the healthy state, is the seat of reflection and the source of deliberate action, so, when partially impaired, and in a state of lesion, it is incapable of furnishing the same quota of excitation as before. But the palsy in such cases is constant and uninterrupted; and, whether loss of sensation accompany it or not, no irritation or injury of the integuments of the palsied limb will produce the smallest muscular action; that intuitive flinching and retraction of the limb, when pinched or pricked, which occurs in animals from which the brain has been removed, does not take place in cases of simple palsy dependent upon cerebral disease. The palsy therefore involves some additional element besides the mere abstraction of cerebral power.

The additional element, so shown to exist, is taken for granted in the second hypothesis, and is supposed to be an active depressing force, which strikes with feebleness the organs of volition and sensation, in part or wholly. Upon this hypothesis, which I adopt, I am disposed to believe that, when the brain is in certain states of lesion, it actively paralyses, by the transmission of a lowering and deleterious influence, the me-

dulla oblongata and the spinal marrow.

It may be asked, whether it is reasonable to suppose that the brain, when in a state of lesion, can originate any such depressing or palsying shock? Reasoning upon analogy, it is probable that the brain may possess this property. It is certain that, upon other organs than those of animal life, the brain does exert such disastrous and depressing influence. For example, in persons of a nervous temperament, sudden and overwhelming intelligence will sometimes temporarily stop the heart's action. Physical impressions, again, such as crushing a part of the brain or spinal marrow, will temporarily palsy the heart; an experiment the more conclusive, that the

heart's action will continue undisturbed during the entire removal of the brain and spinal marrow, if the abstraction of these parts be made with gentleness. Is it surprising that lesion of the brain, which can palsy the heart, the action of which is not derived from the nervous system, should throw palsy upon the voluntary muscles, that in so many ways are habitually influenced through it? Such a force of depression, similar in kind, although much less in degree, mental affections alone seem to have the power of temporarily producing: the "genua labant, tremor occupat artus," the weakness of terror, is probably an instance of imperfect or temporary palsy so produced.

Upon these and other grounds, which will be presently mentioned, it appears reasonable to believe that a lesion of the brain is capable of originating a depressing force, which can strike with palsy the organs from which the nerves arise; or that palsy from cerebral disease is not caused by the interruption of an accustomed stimulus, but by the production of a new and withering influence, transmitted from thence to the

origins of the nerves.

2. How does it happen that a lesion of one side of the brain invariably produces palsy of the opposite side of the body?

The fact is remarkable from its uniformity: how is it to be accounted for? The entire analogy of the nervous system leads us to suppose that the influences which pervade it move in the direction of the threads or filaments of which the medullary substance is composed. Anatomists therefore look with curious interest to the construction of the enkephalon, in the expectation of discovering some transposition or crossing over of nervous filaments from one side to the other, through which the crossing of the depressing influence, or palsy-shock, may be supposed to be conveyed. After the most careful research, it appears that such a transposition or decussation of nervous threads, is to be found in the medulla oblongata alone. Where the medulla oblongata joins the spinal marrow, the anterior pyramids throw their fibres downwards, in oblique decussation, each to the opposite side, in such a manner that the right anterior pyramid plunges into the centre of the left half of the spinal marrow, while the fibres of the left anterior pyramid plunge into the right half of the chord.

I concur with those who think that these decussating filaments are the channels through which the palsying influence is conveyed from a diseased cerebral hemisphere to the opposite side of the frame, upon several grounds: first, because these decussating fasciculi are the only ones which have been discovered in the enkephalon; secondly, because the position of these decussating fasciculi is exactly that which experiment and observation lead us to expect to be the place of the transposition of palsy; thirdly, because all the phenomena of hemiplegia from lesion of the opposite side of the brain, may be explained upon this supposition; fourthly, because even the remarkable cases in which partial hemiplegia of the opposite side is combined with partial palsy on the side of the cerebral lesion, admits of perfect explanation on the same hypothesis.

The most conclusive facts with which I am acquainted, to show that the crossing of palsy to the opposite side is effected in the region of the medulla oblongata, are given in a very interesting paper by Dr. Yelloly, in the second volume of

the Medico-Chirurgical Transactions.

Dr. Yelloly describes an experiment upon a dog, in which Sir Astley Cooper divided the right half of the spinal marrow, at the interval between the occiput and atlas: the dog became palsied on the injured side. It may be inferred from this experiment, that the seat of the transmission of palsy is to be found above the atlas.

Dr. Yelloly afterwards describes a case of hemiplegia, in which it was found, after death, that a tumour, of the size of a filbert, had been imbedded in, and had made pressure upon, the right side of the annular protuberance. The hemiplegia in this case had affected the left, or opposite side of the body.

It may be confidently inferred from this case, that the seat of the transit of palsy is behind or below the pons Varolii; but the experiment by Sir Astley Cooper, previously mentioned, establishes that it is above the spinal chord. The two instances, taken together, render it almost certain that the place of the transit of palsy is somewhere in the medulla oblongata, or its junction with the spinal chord; and it is evident how much additional force is given to this conclusion, by the fact previously mentioned, that no decussation of nervous filaments has been found, except at the latter point.

We may now inquire whether the decussation of the anterior pyramids is sufficient to account for all the phenomena of

hemiplegia.

Will, in the first place, the course of the decussating fibres account for the production of numbness, or anæsthesia, as well as of muscular palsy; for the former, although not a constant attendant of the latter, may be combined with it? Upon this question no one, who has well examined the anatomy of these parts, will entertain a doubt. The decussating fasciculi of the anterior pyramid, on plunging into the opposite column of the spinal marrow, strike into its centre, and implicate

themselves nearly as much with the posterior as with the anterior fasciculi; that is to say, with the sentient as well as with the voluntary portions of the chord; so that the wonder is, not that anæsthesia should be produced through their agency, but that it should be so seldom produced, compared

with the frequency of simple muscular palsy.

Again: it is evident that palsy of all the spinal nerves of the opposite side of the body may be sufficiently accounted for, as a consequence of lesion of the cerebrum, if the anterior pyramids be supposed to transmit the palsy shock; for the fibres of the pyramids, which extend upwards, on the one hand, into the cerebral hemispheres of the same side, or into the seat of lesion, on the other hand, are continued downwards into the upper part and centre of that tract. from which the whole of the spinal nerves are derived. But how is it possible to account for palsy of the opposite side of the face, through the same channel, for palsy of the opposite side of the tongue, and of the opposite facial and auditory nerves? These phenomena may, perhaps, be thus explained: Where the decussating fasciculi of the anterior pyramid plunge into the opposite half of the spinal marrow, they are implicated, in a wonderful closeness of intertexture, with fibres, which, in their upward course, bend towards the places of origin of the ninth and seventh, and of the eighth and fifth of that palsied chord. May it not be supposed that this interlacement may be a sufficient means of communicating the palsying influence to the ascending fibres, which are in close relation to the affected cerebral nerves? Thus, the palsystroke transmitted to the junction of the spinal chord and medullary oblongata, might spread its influence in either direction separately, or in both together, according to laws which may possibly be hereafter rigorously determined; sometimes striking the body alone with palsy, sometimes the face, sometimes both; sometimes palsying speech, sometimes deglutition, sometimes hearing.

But the fifth nerve, why is it so rarely affected in hemiplegia? and the orbital nerves, why do they so frequently escape the palsying influence? These phenomena, it will be evident, are highly consistent with the supposition that the palsying force strikes exactly at the point where the decussating fibres of the anterior pyramids terminate. Supposing the paralysing impression to be received on this part, its force upwards should be weakened in proportion to the distance of each cerebral nerve from that part. But the fifth lies further off than the seventh, the third than the fifth; and something in that proportion is the infrequency of the palsy of these nerves in

hemiplegia.

But if the phenomena of hemiplegia dependent upon cerebral lesion are thus sufficiently explained, how is the fact to be accounted for, that hemiplegia of the opposite side is produced by lesion of one hemisphere of the cerebellum? I have little doubt that the following explanation of the phenomenon will eventually be proved to be correct.—The fibres of the anterior pyramids pass through the pons Varolii. The pons Varolii consists in great part of filaments, which issue from each hemisphere of the cerebellum. These filaments may easily be supposed to convey a depressing influence from the diseased hemisphere; but in their course they come immediately upon the filaments of the anterior pyramid of the same side; and they are so implicated with the latter, with such a singular closeness of reticulation, and often with so much that looks like an actual interchange of filament, that it is far from unlikely that they may transmit to the descending fasciculi of the pyramid a shock, which may thence be communicated to the same part at which cerebral lesion exerts its paralysing

But why does it not happen that the diseased hemisphere does not strike with palsy the cerebral nerves of the same side, the fifth, the seventh, and the ninth? It is not impossible that the ninth, which rises close to the side of the pyramid, may be so affected. But the fifth and seventh are so remote from the pyramid of the same side, that it could not be

expected to extend its influence to them.

But it has been mentioned that there are cases in which hemiplegia of the opposite side to the seat of cerebral affection may coexist with partial palsy of the same side; both phenomena being produced by one cerebral lesion. How are such phenomena to be brought under the same hypothesis? The following case, which is under the care of Dr. Hawkins, in the Middlesex Hospital, and is of remarkable interest, may serve at once to exemplify and to explain the apparent anomalies to which I now advert.

The patient, a female, twenty-eight years of age, (I omit the symptoms of general disorder under which she has laboured,) experienced, in December last, pains deeply seated in the left side of the head; she became afflicted, at the same time, with palsy of the right side of the body. Under appropriate treatment, the pain in the left side of the head has subsided, and the hemiplegia has much diminished. But another symptom supervened soon after the appearance of the hemiplegia: the

sight of the left eye has become dim, the pupil is dilated, the upper eyelid has fallen, the eye is more prominent than the other, is habitually directed outwards, and can by no effort be directed inwards. It is evident, from the latter train of symptoms, that the second and third nerves of the left side have become partially palsied. Through palsy of the second, her sight is dim; through the same cause, joined with imperfect palsy of the third, the pupil is dilated; through the palsy of the third, again, the eyelid droops, the levator having feeble action; through the same cause the eye protrudes, for there is no sufficient force in the weakened recti to overcome the traction forward, which is produced by the unpalsied superior The eye is habitually turned outward through the oblique. influence of the fourth and sixth nerves, that are unaffected; and when, by a painful effort, the eye has been slowly drawn to a central position, which the feeble action excited through the *imperfectly* palsied third can gradually effect, the contrast is remarkable of the rapidity with which it is thrown outwards, the moment the patient is desired to look in that direction.

But what is the seat of the lesion which has produced this complicated paralysis? It appears to me impossible to doubt that the disease is situated in or near the left optic thalamus; it has palsied, though not perfectly, the second and third nerves of the same side, which rise in its immediate vicinity; it has then thrown its palsying influence down the fibres of the crus cerebri to the anterior pyramid of the same side; the fibres of the pyramid having no communication with the fourth, the fifth, the sixth, the seventh, or the eighth, of the same side, these have escaped unharmed. Below their origin is the decussation, at which it is certain that the palsy shock has been transmitted to the opposite half of the spinal chord.

What may be the nature of the disease in this case is by no means so certain as its place. Palsy follows various kinds of lesion: sanguineous effusions, softening, abscess, tumours, or pressure from substances external to the meninges of the brain, may frequently produce it. In the present instance, the gradual supervention of the symptoms renders it probable that they are caused either by softening or by the growth of a tumour. The diminution of the hemiplegia under the treatment employed, and the increase of the palsy of the parts in the orbit, lead me to suspect the latter.

3. What reason can be assigned for the facts, that in total hemiplegia from cerebral lesion, the palsy of the leg is less complete, and capable of being more quickly recovered from, than the palsy of the arm?

194 MR. MAYO on some of the Symptoms which attend

If the hypothesis of a palsy stroke, or paralysing shock, be admitted, it is easy to account for these phenomena, which, it may at the same time be observed, are strikingly irreconcilable with the opposite hypothesis. If a paralysing force be supposed to be transmitted along the decussating fasciculi of one anterior pyramid, as it is natural to expect that where the blow falls, there the effect should be greatest, it is but consistent to expectation that the principal degree of palsy should be produced in the upper part of the spinal marrow, and lower part of the medulla oblongata. Accordingly, nothing is really more frequent than the occurrence of hemiplegia limited to the face and arm of one side.

In order to suppress an hemorrhage from the throat, I applied a ligature to the common carotid artery, in a gentleman about thirty years of age: a few days afterwards, palsy of the opposite arm and side of the face supervened. After his death it was found that an abscess had formed upon the right

cerebral hemisphere.

A gentleman, eighty years of age, after a day of unusual exertion, in December last, was smitten with palsy: it affected the left arm and the left side of the face. He has now en-

tirely recovered.

A woman was admitted the last week, under the care o Dr. Watson, into the Middlesex Hospital, in a state of insensibility: she gradually regained consciousness, but one arm and the same side of the face were palsied; in a few days she died. A large clot of extravasated blood was found in the substance of the left hemisphere of the brain.

But it is needless to multiply instances of this most frequent occurrence, namely, the combination of hemiplegia of the face and arm of the same side from cerebral lesion of the

opposite.

But in the two first cases, to which I have adverted, other features presented themselves: in the first of the two, before death, the leg of the same side became additionally palsied. In the second, the leg of the palsied side was observed to be extremely cold. In both instances, a smaller force of palsy

reached the lower limb than had struck the upper.

As a general rule, when hemiplegia slowly invades the entire side, the arm is palsied before the leg. The palsy of the arm is more complete than that of the leg; and, if the patient recovers, the palsy of the leg diminishes, and finally disappears before that of the upper extremity. It is obvious that the hypothesis of a palsy stroke, transmitted by the decussating fasciculi of the anterior pyramid to the junction of the medulla oblongata and spinal marrow, and thence throwing

3

its influence upwards and downwards, (the effect diminishing as the distance in either direction from that point increases,) will account for all these phenomena; which, on the other hand, may fairly be used as strong arguments in proof of the soundness of that hypothesis.

4. Why, in a slow attack of palsy, are the muscular weakness and the numbness first felt in the extremity of the affected limb? Why in the hand before the fore-arm,—in the fore-arm

before the upper arm?

In this instance it may be presumed that a diminution of the usual quantity of stimulus or energy, transmitted along the nerves from the organs in which they rise, is the cause of the effect observed. A part of the chord is smitten with an imperfect palsy-stroke: it cannot energize as before, or throw along the nerves which arise from it the usual quantity of nervous force. Upon this supposition it would follow that the defect of stimulus should first become sensible at the extremity of a limb. The weakened segment of the chord might be expected to be unable to throw out energy enough to fill a long nerve, which it yet might supply with adequate force of stimulation the shorter nerves of the portion of the limb nearer The fact presents a remarkable contrast with the last class of facts adverted to, and shows at all events that the two are not referable to one principle. In slow hemiplegia, the arm is struck before the leg; but the hand is struck before the arm.

5. How is it to be accounted for that muscular palsy is more

frequent than anæsthesia?

The reason may be this: The office of the sentient nerves is probably an easier function than that of the motor nerves. In some experiments which I made upon the mode and quickness of reparation of both classes of nerves after their division, I found that the sentient nerves resumed their functions in a shorter time than the voluntary nerves. I divided the facial branches of the seventh and of the fifth nerves, on one side in a cat: in fifteen days sensation had returned, but no sign of returning motion appeared till the twenty-first. If this principle be true, it will solve the present question. sentient nerves, it would appear, require a harder blow to palsy them than the voluntary. It deserves besides to be pointed out, that, as the office of the former is to transmit towards the centre, not from the centre, it is natural to expect that they would be less susceptible of a force proceeding against the habitual course of these motions. The connexion of the decussating fibres of the pyramid with the posterior part of the opposite half of the spinal chord, is likewise not quite as extensive as with the anterior.

02

The medulla oblongata, to which so much importance has been attached in the preceding observations, has on other grounds the greatest interest of any part in the whole economy: by a strange property, although its direct office, as far as the mental operations are concerned, is probably subordinate, it is nevertheless the immediate link which binds us to life; so that all the endowments of the mind are at once corporeally extinct, and the soul liberated from its tenement, when this small organ is mutilated. Perhaps it is more wonderful still, that this small and central part can actually determine the persistence of consciousness in either portion of a divided animal: it determines, for instance, in a coldblooded animal, whether feeling and volition shall persist in the body or in the head, and perish in the other. In decapitating a turtle, if the section be made below the medulla oblongata, the body is instantaneously dead, but the head remains alive for hours. If, on the other hand, the section be made half an inch higher, the head is instantaneously bereft of life; the body, for days afterwards, remaining alive, and endued with feeling. Nor is it through the whole medulla oblongata, small as that part is, that this vitalizing property is diffused: it can be proved to be confined to a small portion of its upper end; the part, namely, at which the fifth, seventh, and eighth nerves take their rise. In frogs and turtles, which possess such a power of surviving common mutilation, if, every other part remaining entire, this little segment be deeply injured with the finest point, the limbs, and every part, are at once relaxed in death, and life is utterly and instantaneously extinguished.

One might almost fancy that this striking phenomenon had been known to our great Poet, from a passage which I will venture to quote, in concluding the present remarks, so curiously true to Nature is the following imagery: yet is it no more than one additional proof to many of that intuitive justness of fancy and penetrative imagination with which the mighty Mother had endued her favoured son.

"Within the hollow crown
That rounds the mortal temples of a king,
Keeps Death his court; and there the antic sits,
Scoffing his state, and grinning at his pomp;
Allowing him a breath, a little scene
To monarchize, be feared, and kill with looks;
Infusing him with self and vain conceit,
As if the flesh that walls our mortal life
Were brass impregnable;—till, humoured thus,
He comes at last, and with a little pin
Bores through his castle wall, and farewell king."

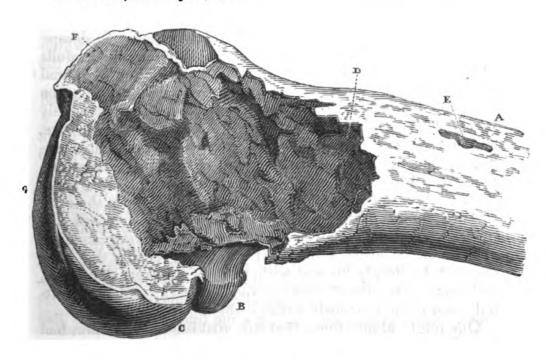
To the Editor of the Medical Quarterly Review.

Sir: Should the following case, with the accompanying remarks, illustrated by specimens from my own morbid anatomical collection, be considered sufficiently interesting to merit a place in the Medical Quarterly Review, they are very much at your service.

I remain, Sir, your obedient servant,

John Howship.

Saville Row; January 16, 1835.



References to the Figure.

- A. The shaft of the right femur.
- B. The external condyle.
- C. The internal condyle.
- D. The large excavated opening, the external margin of which, at this part, demonstrates the outer surface of the femur, thin as paper.
- E. The exposed cavity of one of the enlarged longitudinal canals.
 - F. The thin cartilaginous surface of the internal condyle.
- G. A mass of fine light cancellated structure remaining within the articulating surface of the condyle.

Some Account of a Tumour, induced by Hæmorrhage, from Rupture of the Nutritious Artery, within the Femur; with Comments on the Treatment. By John Howship, Esq., Lecturer on Surgery in the Medical School at the Charing-Cross Hospital; and Surgeon to that Hospital, and to the St. George's Infirmary.

The following case may be considered interesting, on either of several accounts; from the close resemblance of its symptoms to those of fungoid disease; from the advantage the patient might perhaps have derived from a more exact view having been taken of the case; or, lastly, from the characters of the disease, which proved a tumour, apparently induced by the rupture of some branch of the medullary artery, within the femur, the artery having continued to bleed during the progress of the disease.

I shall first give the notes of the case, as I collected and

set them down the day after the death of the patient.

Sept. 17th, 1832. M. W., aged twenty-three years, about five months since, in descending a staircase, passed down two stairs, instead of one, by mistake; and, as she thought, strained her right knee, on the inner side. She described the injury as confined to a spot exactly beneath the central part of the vastus internus muscle; not at first painful or tender on pressure, but situated, as she said, within the bone. More or less occasional pain, and progressive tumour, were the consequences of the accident; the pain, swelling, and lameness still increasing, notwithstanding the means used for her relief. Her father said that for some time, latterly, she had suffered dreadfully.

By the kind attention of Mr. Anderson, who, towards the conclusion of the case, had seen the patient, I was not only enabled to be present at the examination; but also, with the father's consent, to remove the bone, for more minute subse-

quent investigation.

The tumour was situated just above the knee, on the inner front of the thigh, the size of a moderately large melon; diminishing as it extended upwards, terminating just above the middle of the femur, and yielding an obscure fluctuation. The leg and foot were loaded with ædema. The integuments, (which were healthy,) when laid aside, exposed the tense fascia, within which a fluctuation was now more distinctly perceived. The fascia, and thin substance of the expanded muscles beneath, being divided, the cyst was laid open, from which a quantity of bloody serum flowed out. The opening being freely enlarged, the contents of the tumour appeared to

be traversed by fine membranous septa, whose interstices were filled with grumous blood, masses of fibrine, and serum. In several parts, large coagula of blood were found, confined by a thin film of expanded cellular membrane. The membranous expansions in some parts were rather more firm than in others: at one point was observed, to a trifling extent,

The femur, for the extent of the tumour, was exposed: it felt rough, and at the lower part was extensively laid open, by the active operation of progressive absorption, by which the inner condyle was nearly destroyed. Upon the linea aspera, a light and delicate osseous fabric had for some extent been deposited. Several portions of the detached periosteum were recognized in the tumour, involved in the fibrinous blood; the medullary cavity of the bone being filled with coagula. The lower part of the femur was brought away, and laid in water, to macerate.

November 15, 1832. I called upon the father and sister; from whose account I set down the following particulars.

About ten days after the accident, she first felt a little pain, which was compared to rheumatism: at that time she walked as well as ever, and till a month afterwards, when she first began to walk occasionally lame.

About a month after the injury, walking with her sister, she suddenly stopped, and said "Oh dear me; what a pain I have got in the knee! I do not think I can go any further." In a short time this pain went off, and she reached home very well. The part now began to swell a little, and was somewhat tender above the knee, if pressed.

Seven weeks after the accident, she left the family with whom she had lived, and came home; and, in walking to her own house, (a distance of nearly two miles,) said she felt a throbbing pain; but it was trifling. For the following three weeks she could bear, and walk, upon the limb, as firmly as ever. She repeatedly had leeches, blisters, and poultices applied.

On the 18th of June, she went into St. George's Hospital, where she staid about a month, using the means just mentioned, and also applying, as it appeared, an ointment containing tartarized antimony. Urged to submit to amputation, she left the hospital, and returned home.

About six weeks before she died, a distinguished surgeon kindly visited her, at her own house, and assured her that, "if she were the queen of England, and worth the Indies in gold, no medical man could do her any good;" and humanely

cautioned her, therefore, not to go to any expense with this view.

At that time the tumour, very large, was always in pain: if, at any moment, she dropped off to sleep for a few minutes, she would jump up suddenly, as if a dart had shot through her thigh. She moaned much in her sleep, and, if awake, was often convulsed, as if in a fit; when her father, perhaps, inquiring "Mary, are you in pain?" she would reply, "Yes, father: I am quite sensible."

She frequently felt severe pains, like pins and needles, passing rapidly upwards, from the toes to the hip, and through to the back; the limb, towards the close of her sufferings, becoming swelled, and oppressed with cedema.

For the last nine or ten weeks, she was not able to stand at all; yet was said to have been but little feverish, to the last; although latterly, she took large and frequent doses of laudanum, with scarcely any effect, her sufferings frequently

inducing her to pray earnestly for death.

The femur, cleared from the soft parts, presented the following appearances. The cylinder of the bone was not enlarged, but had lost much of its substance, by progressive or interstitial absorption, which had entirely removed the anterior and internal portions of the inner condyle, exposing the cancellated structure, also extensively destroyed by the same agency; so that, of the internal condyle, the thin articular surface, covered by its cartilage, was nearly all that remained. Neither had the fine vascular membranes lining the longitudinal canals, within the compact substance of the shaft of the bone, been less active; for these canals, extensively and considerably enlarged, had at certain points become united laterally with each other, inducing a loss of strength to the solid bone, with numerous openings upon its external surface.

Upon the linea aspera, new bone had to some extent been

deposited; but on no other part of the femur.

An attentive examination of this preparation demonstrates, that absorption had commenced within the medullary cavity; the internal parts having suffered most materially, the substance of the cylinder less, and the outer surface least; proving that the cause of the disturbance and destruction of the osseous fabric must have been seated within the cancellated cavity. Even in those parts where the cancellous structure yet remains, in the seat of the disease, its condition is entirely changed; for, if observed with a good magnifying glass, it will be perceived that, instead of a reticulated

texture, of rounded fibres, the whole is reduced, apparently from pressure, to so many exquisitely fine, thin, flattened plates, here and there entirely disappearing, in consequence

of absorption having completed their removal.

From the above recent and ultimate appearances of this disease, illustrated as they are by the previous symptoms, there seems no reason to doubt that the whole was the progressive effect of continued pressure and excitement, disturbing the healthy functions, first within the medullary cavity, and subsequently among the soft parts beneath the fascia of the thigh, consequent to the rupture of some branch of the nutritive artery of the bone; and that the case may therefore be regarded as an instance of progressive internal

hæmorrhage.

That a small artery, under particular circumstances, may continue to pour out its blood for a great length of time, is sufficiently demonstrated by an interesting specimen in my collection, in which a ruptured vessel did continue to bleed, inducing the slowly increasing effects of compression upon the cervical portion of the spinal cord, and occupying more than twelve months before it destroyed life;* and the tumour in the thigh, in the present case, was blood, and blood only. Some masses were apparently recent coagula, others partially changed, the fibrine having separated itself from the serum, and at certain points, to some extent from the colouring matter; yet the yellow tinge, and peculiar tenacious elasticity of this substance, could not, even in this state, be readily mistaken.

From the commencement and progress of the symptoms in the above case, it might well have been supposed a case of fungoid disease, and it may fairly be presumed that this was the opinion of those gentlemen who saw it, during its progress, judging from the advice given her; and this certainly was my own impression on first observing the tumour, after death. The dissection, however, set this matter right; and subsequent reflection suggesting a doubt as to whether any, or what, operation ought to have been performed, brought to my recollection several cases, but one particularly, in which I had found all the soft parts of the thigh inundated by fluid and coagulated blood, in an extensive diffused aneurism, the consequence of a wound in the femoral artery, which, when the cavity had been laid open and cleared, and the artery tied, did exceedingly well; the soft parts relieving themselves

The history is published; being the 30th Case, in my Practical Observations in Surgery and Morbid Anatomy.

with ease from their temporary embarrassment. Again, from what I heard of the patient, M. W., and from what I have seen of the powers and disposition of healthy bone in other cases, my opinion is that, if even in the advancing stage of the disease, she had been advised to undergo an operation, the object of which was to save, not to remove, the limb, it would in all probability have been submitted to; and that, had the tumour then been laid freely open, turning out the coagula, and, if hæmorrhage had rendered it necessary, applying a cautery to the cancellated structure, (provided the cavity had been dressed with lint, the limb fomented, and the system soothed,) healthy suppuration and granulation would have followed, and the young woman, in all probability, would have perfectly recovered.

Even the extensive loss of bone sustained at the time of her death, would not, in my opinion, have precluded the possibility, or perhaps have lessened even the probability, of recovery. There is no reason to doubt that the bone would have granulated, or that the periosteum would, very soon, have resumed its healthy functions; the probable result, in a constitution otherwise healthy, being an abundant deposit of new bone within the medullary cavity, or upon the surface of the weakened cylinder, or in both these situations, enabling the limb to support the weight of the body, eventually, as

well as ever.

Neither would the operation for opening the tumour have been unadvisable, in any event; for, had the disease proved to be fungus hæmatodes, the making a section through the tumour in the first instance would not have prejudiced or impeded the next required step, the removal of the limb. The doubt also previously explained, the patient's mind would have been prepared for the uncertainty of the event, according to what the disease might have been found under examination.

That new and compact bone would have been secreted, had the proposed operation been performed, may be inferred on better evidence than mere opinion: it may be proved, by the following example, in which not more, but less, might have been expected from the constitutional powers than in the case now under consideration; an example in which the disease was spina ventosa, with much expansion of the bone; while in M. W.'s case, there was interstitial absorption only, from the pressure and irritation of effused blood, inducing no expansion at all.

March 16, 1829. My friend Mr. Spilsbury sent A. W., a young woman, from Walsall, for my opinion concerning a tumour situated

two thirds down the inner side of the left tibia. The swelling, first observed the size of a pea, had been four years in acquiring its present dimensions, about three inches in length, two in breadth, and half an inch in elevation; attended with occasional shooting or throbbing pain.

The tumour felt equable, rather heated, and as if supported by a light ossific shell, except at one point, where Sir ASTLEY COOPER (whose opinion was requested on the case,) detected a deep-seated fluid. We both agreed that the tumour contained a fluid, and that

it was not a case of fungoid disease.

April 23. Mr. Spilsbury had the goodness to bring me the osseous shell, forming the anterior part of the tumour, which he had removed a few days before by an operation. The cavity was found of considerable size, filled with a bloody serum; the medullary arteries (several nearly the size of crow-quills,) bled profusely, but the hæmorrhage was restrained by the prompt and free application of the actual cautery, assisted subsequently by compression. We called with the specimen on Sir A. Cooper, who observed that Mr. Green and himself had lately had a patient on whom a similar operation was performed: the patient went on well for some months, and the wound healed, but the disease returned; and he feared that would also be the result in the present case.

The thin osseous shell, removed by the saw, was externally even, but internally divided into various cells, some of which still con-

tained a grumous fibrine.

June 17, 1831. I received a letter from Mr. Spilsbury, stating that, although by the former operation, the progress of the disease had been so far arrested, that the wound had granulated, and healed to the size of a split pea, repeated escharotic applications (at the suggestion of other practitioners,) had induced irritation, and the limb had been eventually amputated, in the Birmingham Hos-At the same time I was favoured with the bone itself, the section of which demonstrates, in a very interesting manner, the extent to which nature had carried forward the work of reparation. So far, indeed, as to have left scarcely a trace of the cellular character of the original tumour; the cancellated cavity being occupied with an ossific deposit, of healthy appearance, far exceeding in compactness of texture the ordinary cancellated structure. curious circumstance also, as remarked by Mr. S., was, that the surrounding marginal line of the tumour had, since the operation, become much diminished in breadth, the tibia having consequently recovered much of its natural figure.

Having now stated the case, the appearances on dissection, and the remarks to which those appearances gave rise; it only remains to add, that, desirous to learn if any mode of relief had been proposed in such cases, or whether many other cases, precisely resembling it, had been observed, I turned to a valuable memoir on this subject, referred to by my

friend Mr. Benjamin Bell, in his new work on the Diseases of the Bones. It is a memoir, by M. Breschet, extremely well drawn up, copiously illustrated by cases, full of practical interest, and leading to this conclusion, that, as such tumours bears strong traces of analogy to aneurism in soft parts, the most appropriate treatment is that adopted in aneurism, by the ligature of the principal artery of the limb. The most important case adduced, perhaps, is one in which this treatment was adopted, and that, as will presently be seen, with very decided advantage; although the disease was not permanently cured. A brief outline of this case I shall take the liberty to transcribe, with certain conclusions the author has laid down, regarding the treatment; and I regret that circumstances, which prevented my devoting more time, prevented also my looking more fully into the merits of so instructive a communication.

"C. N. Renard complained of a tumour, on the external part of the right tibia, just below the knee-joint, beating with the pulse. In about a year, the limb lost the power of support, and bent under him.

"He was taken into the Hôtel Dieu, in 1819. The tumour was of the size of the palm of the hand, with occasional shooting pains. The beating ceased, on compressing the femoral artery. M. DUPUYTREN thought it a dilatation of the arterial capillaries of the part; and, local applications failing to relieve, he determined to take up the femoral artery. The operation performed, at once arrested the pulsation in the tumour. He did well; and at the time of quitting the hospital, only a slight tumefaction remained.

"In 1826 he again entered the Hôtel Dieu, with a return of the tumour to a much greater extent than ever. The superficial veins were exceedingly enlarged, but no pulsation was now perceived in the tumour, which was thirty-two inches in circumference. The

limb was amputated, and the patient recovered.

"The tumour of the amputated limb was of enormous volume; a development of the upper extremity of the tibia. On the front, one or two soft but tense projecting points had now become sunk,

and flaccid, where the ossific shell was deficient.

"On dissection, the popliteal artery was of its natural size. The articular arteries, not enlarged, but very small, when injected with care, were seen to send their small filaments into the tumour behind. The recurrent branch of the anterior tibial artery, on the contrary, much enlarged, corresponded to the supply of the swelling on the anterior part of the tibia; its numerous branches expanding over, and penetrating into the substance of the bone.

"The venous system was so much enlarged, that the internal saphena vein was the size of the little finger. The tibia was enormously increased in size, and its natural form at the upper part en-

Divided longitudinally, the cavity of the tumour was The space was distributed into compartments and cells; one of the anterior and largest contained gelatin, the cavity being invested with a highly vascular membrane. Other cells contained a similar secretion, and some a yellow or black and putrescent The vascular network of some cells was injected; the cavities of others filled with layers of albumen, formed by coagulated blood, as in aneurism."

After detailing a considerable number of extremely interesting

cases, M. Breschet observes that

"If it is proved beyond a doubt that this change in the osseous tissue arises from a disease in the arteries of the medulla, and that they are enlarged, it is natural to suppose that the ligature of the trunk supplying these vessels would be the best, and only treatment that could be adopted; a conclusion favored not only by the analogy of all other cases of aneurismal disease, but by the effect of the ligature in Renard's case, the success of which demonstrates the analogy of these diseases of the ossific tissues with other forms of aneurism.

"In aneurism of the arteries of soft parts, we may previously try local applications, or compression of the tumour, but in the present case we can hope nothing from these expedients. The ligature,

then, is the only means in which we can trust for success.

"Admitting that fungoid tumours in soft parts, and those called fungoid tumour of the periosteum, are identical with the disease just described in the osseous tissue (which M. Brescher does not allow) the frequent communication of arteries from different trunks leads to an opinion that the ligature of the principal artery would not be likely to succeed, or that its influence would be confined to lessening the present volume of the tumour, checking its progress for some time; although the circulation re-establishing itself by the numerous vascular communications, the disease would soon return to the state it was in before the operation.

"For the same reason, we see the swelling and pulsation so often return, in tumours of erectile tissue, after tying the principal artery; but in the bones the arterial circulation does not possess the same facilities for re-establishing itself, when the trunk furnishing the principal nutritious arteries has been tied; consequently, this operation offers the best mode of treating this disease in bone.

"Again, is the ligature advisable in every case? Experience shews that the chance of success is greater, the earlier the operation is performed. We may remark, that where it has not succeeded in curing the disease in the osseous tissue, the peculiar characters of aneurism have not returned, and the tumour has remained stationary

a very long time.

"If in Renard's case, organic disease, many years after the use of the ligature, required amputation of the limb: it was the consequence of the accidental circumstance of the vessel being secured at a period when not only disease of the vascular tissue existed, but also an organic change in the condition of the bone, very distinct from that of the vessels. What happened here in the osseous fabric, occurs also in the soft parts, after the operation for an eurism

when the operation has been too long deferred.

"It is in the present day well known that this operation is the most successful, when, instead of trifling, the ligature is applied in the early period of the disease. Mr. Hodson has perfectly established this important truth, in his work; and contrary to all previously received opinions, has incontestably proved that all delay in applying the ligature in aneurism, lessens the probability of success.

"If we have sufficiently demonstrated the advantage and indispensable necessity of the ligature in aneurism of the arteries of the osseous tissue, we think also that amputation is the only resource when the change in the state of the bone is far advanced, and attended with deep-seated disease in the medullary and cancellated structure.*"

Now, it is evident that the case of Renard, as related by M. Breschet, was by no means an exact parallel to that of M. W. It much more nearly resembled that which occurred under the care of Mr. Spilsbury; in the tumour being connected with expansion of the bone, in my mind an essential distinction, and a character of which there was no trace in

the instance at the head of the present paper.

While therefore the taking up the principal artery of the limb might probably have been the most appropriate treatment in the cases brought forward by M. Breschet, most of which seem to answer the description of spina ventosa, and especially the case of Renard, in which the advantage of this treatment was demonstrated; it appears to me that in the case of M. W. the symptoms might have been relieved, and the disease probably cured, with much less eventual inconvenience to the limb, than is frequently incurred by an operation, the very object of which is permanently to set aside the direct course of the circulation, through the limb.

It is true that where the operation for popliteal aneurism has been required in early life, when the elasticity of the arterial system has afforded every facility to success, very little ultimate inconvenience has been the result. But I have in several cases, in middle-aged persons, observed that the perfectly free transmission of the blood through the limb is never afterwards restored; in one instance, at present under my eye, in which a man recovered from that disease, by the

[•] Observations et Reflexions sur les Tumeurs Sanguines, &c. Par G. Breschet. (Repertoire Générale d'Anatomie et de Physiologie Pathologique. tom. 2.)

natural cure taking place, the inconvenience subsequently felt has been such, as almost completely to deprive him of the power of taking exercise at all. This man, entirely easy, and able to move about with freedom a short distance, is yet, after a few minutes' walking, invariably so overpowered by cramps, violent and intolerable pain, as to be obliged to stop short, and stand still for half an hour, till the limb has recovered itself.

In conclusion, then, it may perhaps be doubtful whether, in cases like those above related, connected with expansion of the bone, the removal of a part of the tumour, as in Mr. Spilsbury's case, or the taking up the femoral artery, as in M. Breschet's case, be the most advisable course. The reason I have just given would even here induce me rather to prefer the operation adopted by Mr. S., especially if a seton were subsequently inserted, or an issue kept open,

for one or two years, near the seat of the disease.

But, on the other hand, should the placing a ligature on the principal artery, in such cases, be regarded the better expedient (and I am fully aware that either this or any other suggestion should have great weight, from so distinguished an authority as M. Breschet,) then I would say, let the cases be justly discriminated; let those that manifest an enlargement of the bone, and an osseous shell, be submitted to the ligature; but let those deep-seated tumours which, as in the instance brought forward in the present paper, betray, under examination, no indication of expansion of the bone, or the presence of a bony case, be first subjected to the section I have advised, and, if necessary, to the operation I have ventured to advocate, previously to the limb being condemned to amputation.

On the Thymus Gland. By W. F. Bow, M.D.

To the Editor of the Medical Quarterly Review.

Sir: In your "Retrospect of the late Improvements in Medicine and Surgery, &c.," to be found in the sixth number of the Medical Quarterly, mention is made of the conjecture of Sir Astley Cooper as to the use of the thymus gland, and you say that the same conjecture was previously published by me. So far as the thymic liquor is concerned, our conjectures agree, but not our notions as to the design of the gland. Sir Astley thinks it not improbable that the gland is designed to prepare the thymic liquor; whereas, I do not think, that the main design of the gland is to prepare this liquor, but the

thymus I regard as an organ formed for the purpose of reserving, during the fœtal state, the nervous influence which is destined to flow to the respiratory apparatus after birth: this is the main object, the main design of its formation.

As the copies of my publication were very limited in number, permit me, through your pages, to promulgate further my opinions as to the uses of this almost forgotten viscus. Attention to it, since the publication of Sir Astley's works, seems in some measure rekindled; a little agitation, therefore, may elicit facts useful either in destroying or supporting con-

jecture.

According to my ideas of nervous action and of the distribution of nervous influence, there must necessarily exist in the fœtus an organ having the power of accumulating the nervous energy required by the lungs at the moment of birth. and which can, without detriment to the animal, by the sudden cessation of its function, yield up this energy. necessity I deduce from the fact that we cannot increase the nervous activity of any one part of the body, without diminishing it in corresponding proportion in some other part. At the moment of birth, an immense nervous force is suddenly required by the chemical and mechanical respiratory apparatuses, and it is as suddenly furnished: whence then is it derived? It cannot be derived from any organ or structure whose function is necessary to the health or life of the respiring animal. Necessity, then, requires some contrivance in fœtal life which shall accumulate a power, the real use of which is prospective, and which, if not so consumed, would destroy the organization of the lungs long before the period at which the exercise of their functions becomes necessary. Do we know of any contrivance, of any organ, always existing in the perfect fœtus, that can yield its vitality at the birth of the child, without danger to the child, owing to the cessation of its function? We know that the function of the thymus ceases at birth, because soon after birth its lobes become thinned by absorption, and its reservoirs begin to be oblite-Sir Astley Cooper says he injected the gland in a child of one month, and found that the lobes had become quite thinned by absorption, although the reservoirs in part remained; but even one of these was partially obliterated. In a child of four months, the reservoir was very small, and broken into several portions; and the weight of the glands, which should have been in the fœtus of nine months 240 grains, was only forty-five grains, or about five times less than in the fœtal state.

At birth we find a set of organs called on, for the first

time, to exercise their functions, the agency requisite being nervous power: at the same moment we find an organ ceasing to perform any function, becoming paralyzed and dying, evidently owing to its being deprived of nervous power. The power lost is of the same nature as the power acquired; we must therefore presume that either the nervous power of the one organ is annihilated, and that of the others created, at the same moment, or that there is a transfer. Is not the

latter supposition the more probable?

Such is the main object for which this gland exists. But as so much nervous influence must be determined to the gland, I thought that it must also be endowed with the power of secretion. I therefore referred to what was known of the anatomy of the gland before Sir Astley's satisfactory account was published, and learned that vessels resembling lymphatics passed from it to the thoracic duct, and that the gland and these vessels often contained a milky fluid resembling chyle. This fluid must be useful to the fœtus; and, as it is poured into the thoracic duct, thence to be circulated with the blood, its use, I concluded, could only be that of enriching the circulation, and furthering nutrition.

I know not if comparative anatomy can furnish direct proof that the thymus be mainly designed to act as a diverticulum to the nervous influence which, after birth, is intended to flow to the lungs; but it furnishes facts which prove that similar contrivances do exist in the fœtus for the purpose of expending nervous influence, the use of which is also prospective. The supra-renal capsules in the human fœtus are evidently mainly contrived to act as a diverticulum to the nervous influence intended to effect the secretion of urine after birth; this is directly proved by reference to comparative anatomy.

In the human fœtus the capsules are as large as the kidneys themselves; after birth, they dwindle in comparative size, until, in the adult, the kidneys exceed them by fifteen times. Thus, like the thymus, they are greatly developed, at birth; like it, they are largely supplied with nerves; like it, they dwindle after birth; and, like it, too, they are absent in

children born without a brain.

The kid, when born, has a capsule one sixteenth the size of the kidney, which is nearly its relative size in the human adult. The capsule of the lama of a day old, Cuvier found to be only one hundredth of the size of the kidney. Comparing those animals, then, with the human subject, it may truly be said that they do not possess fætal capsules, and that therefore, during the fætal state, the nervous influence which effects the secretion of urine is not diverted from the

kidneys. With these animals it is not necessary that the nervous power should be so diverted; for they are provided with an allantoid, so that the secretion of urine goes on before birth, without danger either to the mother or fœtus: fœtal capsules to them would be as superfluous as would an allan-

toid to the human subject.

Since we find an allantoid where the capsules are small, and none where they are large, we can come to no other conclusion than that the great development of them in the human subject renders the presence of such a membrane unnecessary; and the only way in which they can render it unnecessary, is by diverting from the kidneys that power which otherwise would produce the fluid that the allantoid is furnished to receive. The existence of an allantoid where the capsules are small, (or, as I said before, where fœtal capsules are wanting,) proves, beyond a doubt, that their principal use in the human feetus is that which I have assigned to them; and, if a particular contrivance be necessary to consume the comparatively small force of nervous influence afterwards required for the secretion of urine, how much greater must be the necessity for a similar design to consume the immense force of the same influence destined to flow to the respiratory apparatus at birth.

The stomach, too, has its diverticulum—the spleen; but, as the process of digestion is not in constant operation after birth, the spleen does not degenerate: a diverticulum is still required when the stomach is inactive. When digestion in the stomach is over, the nervous influence, which effected the secretion of the gastric juice, reverts to the spleen: hence it increases in size, in obedience to a law of nervous action, of which I have endeavoured elsewhere to show the existence. When the chemical nerves of a secreting organ become active, or assume a positive state, the nerves conveying the contractile power to its arterial structure assume an opposite or negative state: hence distention of that structure is permitted, and the volume of the organ is consequently increased. Now, if we can fix upon a class of animals where the lungs after birth are, like the stomach, not in constant operation, we are prepared to find, in such animals, the thymus in a condition capable of again becoming a diverticulum during the inactivity of the lungs; and, as in the case of the spleen during the inactivity of the stomach, an increase in its size.

In hybernating animals, the lungs are not in constant operation: during hybernation, respiration is suspended. According to Dr. Hall, we cannot then detect any movements

of breathing; the air of the pneumatometer, in which the animal is confined, is scarcely changed; the temperature of the animal is the same as that of the atmosphere; it is capable of supporting, for a great length of time, the entire privation of air, and the blood throughout the body is of the venous character. During this suspension of respiration, what is the condition of the thymus gland? It acquires an increase of size, exactly after the fashion of the spleen, during the inactivity of the stomach. In your Number for October 1834, you mention the increase of size of the thymus during hybernation, and you say that my supposition as to the main design of this organ is curiously confirmed by this fact. When I published I was not aware of this increase; but, when I afterwards saw it alluded to in an analytical notice of M. Hangsted's work, in the Medico-Chirurgical Review, I could not avoid hailing it as, at least, strong evidence in favour of my opinion of the gland's physiology.

From the same article I learn that Dr. Kopp is the author of a memoir on one form of asthma occurring in infants, which he traced to a hypertrophy of the thymus gland; the result of this morbid state being a certain degree of compression on the trachea and bronchi. The writer of the

article in the Review says,

"The dyspnæa, we are told, usually occurs in paroxysms, and these are more frequent when the infant is sucking, or has just awakened from sleep, than at other times. The explanation of this is easy: during sleep the inspirations are less profound, and, the lungs being therefore less expanded, more room is left for the enlarged thymus. Whenever the child awakes, it suddenly draws in a deep breath; the thymus resists the full dilatation of the lungs: and a paroxysm of dyspnæa is thus induced. A fit of crying has nearly the same effect; and, in short, any effort which is accompanied by a sudden and rapid inspiration."

Before commenting on the above passage, I shall transcribe some more from the pages of the Review: by doing so here, I shall be able to give my remarks more connectedly.

"The mere circumstance of the thymus being found enlarged, in those cases alluded to by Dr. K., is not sufficient, in itself, to justify the conclusion that all the asthmatic symptoms are induced by the compression thereby exerted on the respiratory organs.

"It is not common to find an hypertrophied state of the gland alone, and unassociated with some lesions of other organs, especially of the heart and lungs. Such being the case, we can readily understand the cause of the respiratory distress; and it may reasonably be disputed, whether the enlargement of the gland is the cause or the result of the other lesions. Caspari and Pagenstecher have

been led, by their investigations, to regard the increased volume of the thymus, in those cases included under Kopp's "asthma thymicum," as induced by, or as the consequence of, the dyspnæa; the true cause of which is, in their opinion, an affection of the par vagum. We cannot, however, reasonably doubt that the thymus, when it has acquired a considerable enlargement, must, of a necessity, offer some impediment to the free dilatation of the lungs, just in the same way as the liver, spleen, &c., when their dimensions are preternaturally increased, give rise to symptoms of distressed breathing. One difficulty, not easily explained, will readily suggest itself to the reader. How is it that the dyspnæa comes on in paroxysms, when the exciting cause is not an occasional, but a permanent one? Surely there is no reason for believing that the symptoms are referable to a periodic congestion of humours in the gland. The following case is important, as it shows that an abnormal enlargement of the thymus is not always accompanied with dyspnœa.

"A girl, seven years of age, was admitted into the hospital at Copenhagen, in October, 1830. For the preceding six months she had been afflicted with severe headaches, to which were now added sickness and occasional vomitings. The looks of the child were heavy and dull, and indicated, in connexion with other symptoms, the existence of hydrocephalic disease. The breathing had been all along, and still continued to be, quite easy and unobstructed.

* The patient died on the sixth day after her admission. On dissection, there was found a considerable effusion into the cerebral ventricles. The thymus gland was of unusual dimensions, and was much larger than in any one case of asthma thymicum related by Dr. Kopp himself: it weighed five ounces. The right lobe, which was the one most enlarged, extended in front of the right lung, to which it adhered as far as the angle of the ribs: it measured four inches in length, two in breadth, and was nearly an inch and a half in thickness. Its texture had become degenerated into a granular or tuberculous mass, which presented no traces of any cells or of lobules. The upper lobes of the lungs also exhibited tuberculous changes. The thyroid gland and the capsular suprarenales were normal.

"Meckel (primus) describes the history of a soldier, twenty-six years of age, who had long suffered from paroxysms of dreadful anxiety and dyspnæa: at first their recurrence was at considerable intervals, but afterwards they became much more frequent. In the upper part of the cavity of the anterior mediastinum, there existed two large lobes of the thymus; each of these was three and a half inches long, and from six to ten lines in breadth; their texture was nearly the same as in the fœtus; they were cellular, and might be distended by blowing air into them; several considerable-sized arteries and veins, derived from the internal mammaries and inferior thyroids, were distributed upon their substance; their colour was a reddish white; very little adipose matter existed in the surrounding cellular substance."

It would appear, then, that there are exceptions to the general law; that in some cases the thymus does not diminish, but, on the contrary, it increases in size; and that the individuals in whom this irregularity exists are subject to obstructed respiration, occurring in paroxysms. Admitting that a preternatural enlargement of the thymus may offer some impediment to the free dilatation of the lungs, the dyspnæa recurring in paroxysms admits not of this mechanical cause. The cause is that, whilst the thymus retains its original organization, there remains a tendency to resume its secreting function, or, at least, to recover the nervous influence it yielded to the lungs, when respiration commenced. And at what times do these paroxysms most frequently occur? "When the infant is sucking, or has just awakened from sleep:" at the very times when, if I may so express myself, the lungs are most off their guard; when the inspirations are less profound. If a paroxysm occur when the child has just awakened, I suspect that the commencing paroxysm is the cause of the sleep being broken, when a child is awoke by a sudden attack of croup. When a child sucks, the inspirations are frequent, and therefore cannot be profound; if he be a hearty sucker, it may be said that breathing to him is of se-

condary consideration,—he has no time for it.

I have transcribed the Copenhagen case and Meckel's case in full, because I think much information is to be gained from a comparative view of them. In the first we find the gland enormously enlarged: the measurement of the right lobe only is given, yet it would occupy more space than the lobes, the measurement of which is given by Meckel. In the Copenhagen case, the "breathing had been all along, and still continued to be, quite easy and unobstructed." In Meckel's case, the patient "had long suffered from paroxysms of dreadful anxiety and dyspnœa." Since, in the case of the greater enlargement of the gland, the breathing continued easy and unobstructed, we cannot blame the size of the gland for the dyspnæa in the other case, more especially as that dyspnæa was not constant. In the Copenhagen case, the texture of the gland "had become degenerated into a granular or tuberculous mass, which presented no traces of any cells or of lobules;" a disorganized mass, which could not interfere with the functions of the lungs, by resuming or by having a tendency to resume its former function. In Meckel's case, the texture of the lobes was "nearly the same as in the fœtus: they were cellular, and might be distended by blowing air into them; several considerable-sized arteries and veins, derived from the internal mammaries and inferior thyroids, were distributed upon their substance; their colour was a reddish white." Morbid anatomy could not furnish a better proof of the soundness of my views as to the design of the thymus, than this case. The gland increases in size as the body increases; it retains its original structure, and a tendency to resume its original function. In the fœtus it was a diverticulum; at birth, it yielded the nervous influence required by the lungs, but, perhaps retaining a part, it did not degenerate, and ever after showed a tendency to regain the whole; the attempts to do so causing dyspnœal paroxysms.

I begin to suspect that, in children who die of croup, the thymus will be found larger than it ought to be, owing to its not yielding to the lungs at birth all its nervous influence, and therefore, having a tendency at times, when accidental causes create irregularity in the distribution of nervous influence, to resume its original function; and that this tendency continues until the age at which the thymus becomes nearly obliterated: if this be the case, we have the reason why croup

is seldom observed after the age of twelve.

"According to the researches of some pathologists, an abnormal development of the thymus has, in numerous instances, induced sudden and fatal suffocation in very young infants." If the thymus be a diverticulum in the fœtus, and if it can again divert nervous influence from the lungs after birth, we need look for no other explanation of these facts.

W. F. Bow.

Alnwick; February 12, 1835.

To the Editor of the Medical Quarterly Review.

SIR: I beg leave to enclose you some notes of three cases which occurred in the wards of Guy's Hospital, under the care of Mr. Key.

If you should deem them worthy of a place in the next Number of your Review, I have Mr. Key's permission to

make that use of them.

I am, sir, your obedient servant,

J. H. FREEMAN.

Guy's Hospital; March 20, 1835.

1. Ossification and Ulceration of the Cartilages of the Larynx, with Fistulous Opening.

George Blackgrove, æt. forty-eight. During the former part of his life he was employed in some iron-mills, and was accustomed to drink spirits freely; but his habits lately have been temperate. He received a severe burn on the head five years ago, which healed very slowly (in twelve months), and reduced him considerably.

After that, his occupation was changed, and he worked in a tanyard, where he was much exposed to damp and cold: the early consequence was an abscess which formed behind the left ear, and proved as troublesome as the burn: after having been a patient at several public institutions, he was at length cured in fifteen months. For the last four or five weeks, his health has not been so good as usual; and, fourteen days ago, he had a small swelling, attended with pain, on the left side of the larynx, followed successively by two on the opposite side: they all burst, and discharged much. Four days before his admission, he noticed a hissing sound proceeding from the ulcer on the left side, and he coughed almost incessantly for about two days: at last he applied for relief at the hospital as an out-patient. He was admitted to the house the following day, January 3d; and, on examination, a large portion of the cricoid cartilage on the left side, and of the thyroid on the right, was found ossified and denuded: there was a fistulous opening through the crico-thyroid membrane, through which air passed very freely while speaking, and generally without giving pain. He states that six months ago he strained himself while carrying a heavy weight, and that his throat has always been uneasy since.

Local applications, and those of a very mild nature only, were applied for several days; on the 7th January, Mr. Key ordered him Iodinæ gr. ss.; Potass. Hydriod. gr. iij.; Syr. Papav. 3ss.

10th. His appetite, which was deficient when he was admitted, is increased; the ulcers somewhat improved, appearing less inclined to extend.—Pergat.

12th. Mr. Key attempted to remove a portion of the cricoid

cartilage, but found it firm.

16th. His health and appearance are both much better: he requested a more plentiful diet, which was allowed him. A small

portion of the cricoid cartilage was removed.

20th. He was ordered, as a gentle stimulant, a lotion of very dilute nitric acid (gtt. ij. ad 3j. aq.); but, by mistake, he applied some pure acid, which was in the ward. This destroyed the integuments to some extent, but does not appear to have affected the cartilage.

21st. The ulcer is much inflamed. No ill effect followed the application of the acid except the extension of the ulcerating surface. Bread poultices were applied, and the iodine continued.

23d. His throat is much better; the cartilage appears quite

firm, and the ulcers on the right side cicatrizing.

28th. The smaller ulcer on the right side healed. One bare spot of cartilage can be felt by the probe, in the larger one on the same side. The opening in the larynx on the left side smaller.—Pergat.

The opening was closed on the 12th of February, and he left the hospital quite well about three weeks afterwards. He suffered no inconvenience from the iodine.

II. Operation for Femoral Hernia, without opening the Sac.

Ann Hunt, æt. forty-two, was admitted at Guy's Hospital, on the 4th of January last, suffering under strangulated hernia. Her complexion was florid, and she stated her general health to be very good; she said that she was married, and the mother of six children, the last of which was born several years ago. The hernia, which was femoral, was of sixteen months standing; during which time it had always been returned with facility, and retained by a truss. About forty-eight hours before her admission, having removed her truss, the hernia protruded, and very soon she became affected with pain in the part and sickness. A medical man was called in, who merely sent her medicine for the alleviation of the sickness, as she had concealed from him at first the fact of her being ruptured. When he became acquainted with it, he endeavoured to reduce the hernia; but, failing to do so, he sent her to the hospital. The hernia was then extremely hard and painful to the touch; her abdomen was tumid and tender, and her bowels had not been relieved for fifty hours; the sickness constant during the same period. Pulse 120, small; tongue brown, and furred. She was put into the warm bath, and the taxis employed for about fifteen minutes, and again for a short time, when the bath had produced syncope, but without success.

Mr. Key now saw her, and, finding the tumour still unyielding, she was removed to her bed, and the operation commenced in the usual manner. After dividing a portion of the fascia propria, a lobulated mass presented itself, very much like omentum, but consisting of fat brought down by the hernia from the crural opening. Through this Mr. Key introduced the flat director he employs in this operation, and, having divided the stricture external to the sac, the slightest pressure on the part sufficed to return the bowel to the abdomen. Her symptoms were immediately relieved, and two hours after the operation she complained of nothing but slight smarting in the wound. She was ordered.—R. Magnes. Calc. 9j.; Magnes. Sulph. 3ij. statim sum. Injiciatur Enema c. Ol. Ricini 3ss. post horam. This acted twice on her bowels in about four hours. Pulse, ninety-six.

On the following day, January 5th; her countenance was exceedingly good, tongue clean, skin moist, pulse eighty-eight. She had but little sleep. Bowels not opened.—Rep. Mist. 3tia quaque hora, si op. fuerit.

6th. Bowels opened twice in the night. She slept well; tongue clean; pulse seventy-six.

7th. The same.

8th. The medicine occasioned flatulence, and was suspended.

9th. She complained of much pain in the lower part of the abdomen; skin hot; tongue white; pulse 108. She had pain on inspiration.—Hirudines XL. abdomini. Calom. gr. ij.; Opii, gr. j. 6ta quaque hora.

10th. Pain much relieved; passed a tolerably good night; tongue less furred; pulse eighty; bowels not opened.—Enema c. Ol. Ricini 3ss.

12th. Towards evening she had a return of the pain in the abdomen; tongue furred; pulse ninety-six.—Hirudines XL. Rep.

13th. Better: much relieved by the leeches; skin moist. —Cont. Pil.

14th. Much better. She has had a swelling in the right iliac fossa, but which is now much smaller.

16th. Going on well. The swelling in the side scarcely

perceptible.

18th. She complained of acid eructations; for which, a few small doses of Potassæ Carb. were administered. After this she had not a bad symptom. The wound healed on the 30th, and she was discharged.

III. Impenetrable Stricture, with Urinary Fistula. Operation.

Samuel Huie, æt. thirty. Eight years ago, while engaged as a planter in Jamaica, he fell across a beam, and injured his perineum: the accident was followed by retention of urine and extravasation. A small catheter was introduced thirty-six hours after the fall, and was kept in the bladder two days; the integuments and urethra had then sloughed, and laid open the passage several It remained so twelve months, when the edges of the wound were pared, and ligatures applied. He wore a catheter till this had healed, which was in about two months. When it was withdrawn, the urethra became strictured at the same point, and at length almost impervious; only admitting the stilette of an elastic catheter. From this time he frequently suffered from retention of urine, and relieved himself by the introduction of the wire. About twelve months since, a small abscess formed in the perineum, behind the stricture, which burst, and the urine has been passed in part by the opening up to the present time. He was taken into the hospital, October 8th. No instrument could be passed through the stricture, except the small stilette, which he introduced with considerable dexterity. The urethra, at the termination of the bulb, was very hard and irregular, and behind it was a small opening in the perineum, which would scarcely admit the smallest probe. Micturition was attended with great pain; the urine passing guttatim from the fistulous opening, and in a minute stream, about the size of a horsehair, from the penis.

After he had been in the house some weeks, Mr. Key, finding it impossible to cure the stricture by dilatation, proposed an operation, similar to the one which had before been performed, viz. that of opening the urethra with a knife, and allowing it to heal over a catheter. This was done on the 10th of November. The quilled suture was used, but removed three days afterwards, in consequence of a small slough appearing between the edges of the

wound. A week after the operation, the catheter was withdrawn, cleaned, and returned without difficulty. On the 10th of December, the opening was very small: Mr. Key introduced a smaller catheter, and ordered the Ung. Hyd. Nit. Ox. to be introduced on

lint, with a probe.

On January 1st, the wound in the perineum was closed, except a very minute opening. The catheter was withdrawn, and ordered to be introduced, when the patient wished to pass urine. The wound healed on the 12th; he introduced the catheter himself with facility, and was recommended to do so for some time, when he found it requisite. He left the hospital on the 17th.

STRUCTURE OF THE PLACENTA. Examination of the HUNTERIAN PREPARATIONS at the College of Surgeons. From the Medical Gazette; with additional Remarks, by Mr. Mayo.

As the structure of the human placenta has lately excited much inquiry, the following statement is offered for insertion to the Editor of the "Medical Gazette." It is an account of an examination of the Hunterian preparations relating to this subject, in the museum of the Royal College of Surgeons in London.

The preparation in the Hunterian museum which throws the most light upon the structure of the placenta, and upon the extension of the maternal circulation into it, is marked No. 3535.

The specimen is a triangular portion of a placenta, having a superficies of about four square inches, one of the sides of which is formed by the margin of the placenta, the other two being cut surfaces, the depth of which, at the angle at which they meet, is an inch and a half. It consists of one entire lobe, and of portions of three other lobes of the placenta. Three kinds of wax injection (one yellow, a second red, a third black,) have been thrown into it. The yellow wax, which appears to have been injected last, and more sparingly than the others, is seen to be in the umbilical arteries. The sources and place of the black and of the red injection, with the latter of which the portion of placenta under consideration is most coloured, will be pointed out afterwards.

The substance of the placenta is seen to be covered by two layers of decidua, one disposed on its uterine, the other over its fœtal surface: these two layers of decidua meet, of course, and become one, at the circumference of the placenta. Upon one of the cut surfaces of the placenta, productions of the decidua are seen extending through the placenta, from the fœtal to the uterine layer of the decidua, which they unite.

Upon the uterine surface of the uterine layer of the decidua are seen orifices of different sizes, some containing red wax, others black wax. Some of these orifices are upon the surface of the lobes, others at the interlobular spaces. The orifices containing red wax open indiscriminately at either situation. The orifices containing black wax open principally at the interlobular spaces. It may be presumed that the orifices containing black wax were continuous with, and injected from, the uterine veins; and that those which contained red wax were continuous with, and injected from, the uterine arteries, upon the following grounds:

The orifices containing black wax are larger, and lead into larger channels, than those which contain red wax. Some of those which contain red wax lead into channels which have the singular tortuous character, described by Mr. Hunter and others as characterizing the termination of the uterine arteries. And there is a preparation of part of an uterus, in the same series in the gallery, which there can be little doubt is that from which the specimen under consideration was separated, and in which the arteries are injected with red, the

veins with black wax.

The orifices upon the uterine surface of the uterine layer of the decidua lead into flattened tubes of greater or less length, which tubes appear to be regular channels, with smooth internal surfaces, formed in the substance of the productions of the decidua. Of these tubes, those which contain red wax are called, in the following description, decidual arteries;

those which contain black wax, decidual veins.

One large decidual vein runs along the placental margin of one lobe. Another, of smaller size, passes nearly vertically in an interlobular fissure from the uterine to the fætal surface of the placenta. The former terminates opposite to an interlobular space at the edge of the placenta, in two small decidual veins: one of these smaller veins opens into the extremity of the vertical interlobular vein just described; the other extends along the fætal surface of the placenta. A third decidual vein, smaller than either of the preceding, dips into a different interlobular space, and, after a course of a quarter of an inch, divides into two smaller veins.

Of the decidual arteries, those which open upon the lobules of the placenta make a sudden turn below the uterine layer of the decidua, and terminate there, forming the short curling arteries of Hunter. The interlobular decidual arteries descend nearly vertically towards the fœtal surface of the placenta. One is seen to reach that surface, accompanying an interlobular decidual vein, described above. Another, larger than the

preceding, passes, for the length of half an inch only, into an

interlobular space.

This preparation, therefore, distinctly establishes that there exist, formed in the decidua, one terminating on, others extending into, or through the substance of, the placenta, regular channels; one set of which is continuous with, and receives blood from, the uterine arteries; while the other is continuous

with, and returns blood to the uterine veins.

The manner in which the decidual vessels terminate, is best seen in those decidual arteries and veins which enter the substance of the placenta, but do not extend to its fœtal sur-Each of the vessels of this class, that was examined, divides into two branches. These branches, after a short straight course, terminate abruptly. At their abrupt terminations, the tissue of which they are composed appears, at more than one point, to be porous. The lining of the decidual trunks does not appear entirely divested of the same character, but in parts presents smooth and regular openings. This appearance in the decidual trunks is most distinctly seen in a large interlobular decidual vein. Immediately without and around the tissue in which the vascular channels are formed, is the injected and seemingly cellular decidual tissue of the placenta.

The preparation, No. 3535, would indeed leave it in doubt whether the red injection, with which it is coloured, is contained in cells, or in a series of minute decidual tubes, comparable to capillaries. But there are four other preparations in the Hunterian museum, seemingly taken from the same subject with that described, and in which the portions of uterus and placenta are not separated. Three of these, Nos. 3539, 3533, and 3538, and especially the first, certainly display a series of cells filled with black injection from the uterine veins. In one of these, numerous openings into cells from the side of

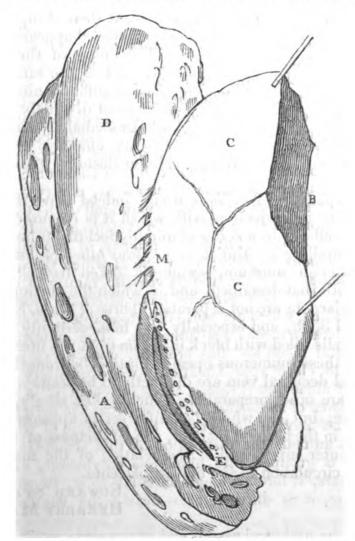
a marginal decidual vein are distinctly to be seen.

There are other preparations which, taken singly, are less illustrative; but the whole beautiful series appears to us to establish, in the clearest manner, the correctness of the views which Hunter entertained of the relation of the maternal to the fœtal circulation in the human placenta.

EDWARD STANLEY. HERBERT MAYO.

The preceding account of an examination of one of the Hunterian specimens was drawn up by Mr. Mayo, in the presence of Mr. Stanley and Mr. Owen; and all three concurred in thinking that the preparation established all the points of

structure which are described in it. The subject, however, is one upon which physiologists are not yet entirely agreed; and any additional evidence upon it may therefore be acceptable to the reader. The diagram which immediately follows has been made with this view: it was drawn by Mr. Mayo, from a preparation, which he put up for the King's College museum. The preparation is a slice of a gravid uterus at the full time, with the corresponding slice of placenta, which is partially detached. The vessels of the uterus are uninjected. The umbilical arteries and veins are injected with size and vermilion. In the figure, A represents the section of the uterus; D, the placental surface of the uterus; C, the uterine surface of the slice of placenta; B, the section of the placenta.



In separating the placenta from the uterus, the decidual adhesions of the one to the other were found to be very numerous: some of these are represented at M. They appear at

first sight membranous bands only, but many of them are certainly deciduous channels, i. e. tubes in the decidua, which are continuous, on the one hand, with the arteries and veins of the uterus, and, on the other, open into the placental cells. They are the channels called, in the preceding paper, decidual arteries and veins. The letter E in the figure represents one of the largest of these, a decidual vein, running along the margin of the placenta: the numerous orifices in it open into regular cells; the orifices being of different sizes, the surface of the production of deciduous membrane forming the cells being smooth, and resembling that of the air-cells of the lungs in cold-blooded animals. The little that is seen of the surface of the cells has an appearance of vascularity, from the injected capillaries of the umbilical system. The openings figured are the channels by which the maternal blood escaped from the cells of the placenta into the decidual vein, E. That vein, on the other hand, opened into the contiguous uterine veins, the adjacent mouths of which are represented in the drawing. The thick filament delineated in the vessel, E, is a clot of blood, which, at the extremity furthest from E, became finer, and entered a placental cell: similar clots of blood are to be seen in the adjacent uterine veins.

Thus it appears that the approach to a communication between the fætal and maternal circulations, is very nearly the same in human beings and in other mammalia. In other mammalia, the approximation of the two systems is made through the immediate contact, but not continuity, of two highly vascular membranous surfaces; upon one of which the umbilical vessels, upon another the uterine vessels, ramify to capillary The two surfaces have alternate prominences minuteness. and depressions, which are mutually co-adapted, so as to produce considerable mechanical adhesion. The maternal blood and the fœtal blood are thus brought, upon a vast extent of surface, into close approximation; two exquisitely delicate membranes alone intervening, through which it is easy to suppose a force of endosmose, drawing from the maternal circulation what may be requisite for the nutrition of the fœtus. In different animals the disposition of this structure varies: in some it is grouped into numerous cotyledons, as in the cow; in others, it forms a single circular zone; in others, as in the mare, it is diffused over nearly the whole uterine surface.

In man, the umbilical vessels end in the same capillarity as in other mammalia, but that is not applied against another capillary surface: the umbilical capillaries are distributed over the walls of cells, formed for that purpose in the decidua, and

comparable to pulmonary cells, or to the spongy texture of the penis, into which the uterine arteries pour blood, and from which the uterine veins receive it. The membranes interposed are equally fine as in the case of other mammalia; but the approximation is not of capillary to capillary, but of capillary to cell. The apposition, too, is not of separable surfaces: the placenta, with its cells, is an expansion of the decidua; between the two separated layers, united as they are by numerous cross septa, the placental cellular tissue is laid out. and the umbilical vessels from the fœtal body, piercing the fætal surface of the placenta, ramify among the placental cells with so intricate and involved a distribution among and around the cells, that the extrication of the one from the other is impossible. In animals, the two opposed membranous surfaces constitute a separable maternal and fœtal system; in the human placenta, the fœtal and maternal systems are separable in idea only. There exists, no doubt, a maternal as well as a feetal portion of the placenta; but they do not occupy different aspects of the placenta, but are equally and entirely commingled throughout.

In thus contrasting the animal with the human structure, it has been assumed that the organization in the pregnant monkey corresponds with that in the horse or cow: this, however, has not yet been established. What would incline one to expect it, is, that monkeys have no menstruction. is by no means unlikely that the periodical secretion of the human uterus, which is, on the one hand, probably connected with the moral and physical constitution of the human female, on the other confers the capability of forming a pla-The human female, after puberty, is always susceptible of sexual desire; to the permanency of which, unlike the periodic appetites of animals, it is probable that the menstrual secretion contributes. A uterus, with such large secreting powers as the human uterus, may be capable of pouring out decidua, and organizing part of it into a placenta; while the uteri of animals, habituated to no secretion, may on that account be capable of nothing more than increased capillary vascularity.

Two Cases of Bronchocele, by JAMES DAMERAM, Esq.

WE have been favoured, by Dr. Henry Davies, with the papers of a deceased medical officer, Staff assistant-Surgeon Dameram, together with permission to extract what we pleased. We shall avail ourselves of our privilege, by selecting, from the records of this diligent and meritorious

officer, two cases of bronchocele, the interest of which depends on the success of a very bold method of treatment. They are to be found in the author's report of cases occurring in the detachment hospital at Penetanguishene, Upper Canada, in the quarter ending 31st March, 1833. Mr. Dameram observes, that eighteen cases of bronchocele had occurred since the 1st of January; a number so great as to make the disease appear epidemic, for it was in the proportion of two cases to five men. The disease was not endemic, and the detachment had been at this post eighteen months, without being attacked by it.

The following are the cases just referred to: for the method of treating them our author confesses himself indebted to Dr. Short, of the 79th Regiment. [Edit. Med. Q. R.]

Robert Morton, admitted 8th February.—R. Iodin. 388.; Conf. Rosæ, q. s. ut fiant pil. lx. quarum capiat j. nocte maneque, ante jentaculum, et post cænam, unâ horâ interpositâ.—R. Iodin. 3j.; Adipis suillæ, 3j. M. fiat unguent. nocte maneque applicandum.

12th. A good deal of redness and irritation is produced

by the ointment.—Pt. in usu unguenti.

13th, vespere. Empl. Lyttæ tumori.

14th. The blistered part has risen well, and the discharge of serum is copious.—Ung. Antim. Tart. applicatur parti vesicatæ.

15th. The application of the tartar-emetic ointment was attended with considerable pain and irritation. The cutis has partially sloughed, the remaining part being covered with pustules.—Applicatur Ung. Cetacei parti ulceratæ. Pt. in usu pilularum.

17th to 21st. The sloughed parts are healing kindly, and there is certainly a diminution in the size of the tumour.

From this time to the middle of the next month, the man took 1½ grains of iodine a day, with occasionally a purge, without the slightest change in the appearance of the neck. I then determined on a second trial of the counter-irritation, which was performed on the 19th of March, in the same way as before, having previously, for four days, rubbed in a scruple of the iodine ointment night and morning. Precisely the same results followed; the same irritation, same sloughing. He still continued his pills.

24th. The healing of the parts now allows me to see that again a very sensible diminution of the tumour has taken place.

27th. The tumour is still decreasing; and so it went on, till there appeared to be nothing left but a little fullness in

the parts. The sterno-cleido-mastoidei are fully developed, as are also the rings of the trachea and thyroid cartilage.

On the 6th of April, I discharged this man.

Rod. M'Leod, the other man, was admitted at the same time with Morton, and treated like him in every respect, and on the same days; with this exception, that for three weeks and a half he took but one grain of iodine a day, because I suspected an organic disease of the heart, or commencement of the aorta; and I feared the iodine at first, especially as he has had, since I have been here, during a warm day, a momentary attack of angina pectoris and syncope: however, the iodine, guarded by purgatives occasionally, afterwards agreed very well with him. The results with him were precisely the same as in Morton's case, during treatment; and now his tumour is, I think, even more completely gone, in the middle and left side of the throat; but, on the right side, there is rather more fullness than in the other case. He was discharged on the same day with Morton, and I shall carefully watch them.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

DR. GÖLIS'S TREATMENT OF THE DISEASES OF CHILDREN.

We are indebted for the following long but valuable article to the Gazette Médicale, of the 25th October 1834, and the 31st January 1835. It is an account of the practice of that distinguished physician, Dr. Gölis, of Vienna, in the diseases of children, and was

drawn up by Dr. Brosius, his pupil.

Inflammatory Diseases. According to Dr. Gölis, two thirds of the diseases of childhood are inflammatory; stimulants must therefore be administered but sparingly, and we must often confine ourselves, especially when the case is doubtful, to mild and gentle treatment. Febrile diseases observe a regular type, and the exacerbations recur at fixed hours; it is only occasionally that they are hastened or retarded a little. Inflammatory fevers are marked by a peculiar brilliancy of the eyes. If fevers of this kind are complicated with worms, they are sure to be attended by anomalous symptoms.

Pneumonia. The pneumonia of children is recognized chiefly by the pain produced by respiration and coughing. The following is Dr. Gölis's usual prescription in this and other inflammatory diseases. R. Inf. Glycyrrhizæ rad: Decoct. Sem. Lin. aa 3ij.; Potassæ Nitratis 9i.; Oxymel Simpl. 3iss.; M. sumat coch. j. min.

omni horâ. (For a child about two years old.)

This mixture of an infusion of liquorice root and a decoction of linseed, is the vehicle for the majority of potions prescribed at the children's hospital at Vienna. In private practice Dr. Gölis uses in its stead a decoction of the root of mallow or saloop. When resolution has taken place, the acetate of ammonia is substituted for the nitrate of potash, a drachm being added to the above mixture.

In the pneumonia of rachitic children, Dr. Gölis has a great predilection for the acetate of ammonia, because it stimulates a little; for in cases of this kind there is relaxation of the bronchi and accumulation of mucus. What Schöffer, in his treatise on the diseases of children, calls pulmonary paralysis, is, according to Dr. Gölis, a real bronchitis, and should not be treated with musk, but with leeches and blisters.

Angina Gutturalis. (Cynanche tonsillaris.) Dr. Gölis shows great dexterity in opening children's mouths, to look at the throat; he introduces his little finger into the mouth, and presses it on the base of the tongue. This causes an attempt at vomiting, opening the throat, and enabling him to satisfy himself as to the existence of an angina gutturalis. This disease is often accompanied by retching: when it is situated in the esophagus, children keep their neck stiff.

We must never omit to look at the cavity of the throat, when catarrh prevails epidemically, or we shall run the risk of overlooking many an angina. If this angina is accompanied by fever, nitre is to be given, as in pneumonia. If there is no fever, the acetate of ammonia is to be given. Besides these internal remedies, the neck is to be warmly wrapped up, and covered with bags of medicinal herbs.

Angina Serosa. This disease consists in swelling without redness, and is treated with the acetate of ammonia.

Angina Membranosa, or Croup. When the appearance of croup exactly coincides with that of the eruption of measles, it is not to be feared; but it is dangerous if it appears while measles is running its course, or afterwards. When a child is affected with croup, he must not be suffered to sleep for more than half an hour at a time; he must be kept awake by continually giving him lukewarm drink. When calomel produces liquid stools, its use must be suspended for a short time; for, if persisted in, it might easily cause an enteritis. The angina would disappear, but the child would inevitably be lost. We are not to use calomel with too much diligence, if the child is of a scrofulous habit, for this medicine might easily change a simple attack into a decided scrofulous affection. We must also be aware of administering musk too soon against the remains of a spasmodic cough, because if the slightest inflammation should still be present, this drug might cause a relapse. It is better to persist in the use of antiphlogistic remedies. The means employed by Dr. Gölis in croup are those adopted by all good practitioners: leeches, calomel, which is sometimes administered in the dose of a grain every hour, with sugar, besides frictions with a mixture of mercurial and mallow ointment on the neck and upper part of the chest; nitre in the intervals; emetics when the breathing is stertorous; and lastly blisters, which, when employed in time, are, according to Dr. Gölis, the most powerful method of preventing membranous exsudation.

The emetic which Dr. Gölis generally prefers for children, consists of Antim. Tart. with a few grains of Ammon. Mur. dissolved in distilled water. He considers the sulphuret of potash as inefficacious, and as difficult to administer from the disgust which it excites, and therefore one with which we ought not to waste precious time.

Inflammation of the Cavity of the Mouth, or Stomatitis. In this affection the acetate of ammonia is given internally. If there are small ulcers, they are to be touched with the following mixture: R. Mellis Rosæ ziss.; Mucil. Cydon. zj.. M. Borax

is too stimulating.

Difficult Dentition. This affection is easily recognized by the rose colour of the gums, which enlarge at the spot where the tooth is to come through. If dentition is very painful, it is often accompanied by an eruption, and in plethoric children, who have porriginous crusts upon their head, the porrigo sometimes increases

suddenly.

Inflammation of the Spinal Marrow, or Myelitis. When a child presents the following symptoms, we may be sure that it labours under myelitis. The body is quite straight from head to foot; the arms are strongly fixed against the chest; the fore-arms move but feebly in the elbow joint, but rather more in pronation and supination; the hand can sometimes be carried up to the chest, but rarely as far as the mouth. The lower extremities are firmly applied to one another in their whole length, and if we endeavour to separate them, the child cries. It also cries out loudly if the position of its body is changed, as, for example, if any one takes hold of it by the shoulder. The disease is also characterized by a great tendency to diarrhæa. Such are the symptoms of myelitis, before the inflammation attacks the brain, but when that is implicated, convulsions appear, and the diarrhæa ceases.

The treatment is antiphlogistic.

Acute Hydrocephalus. If a child cries constantly from the day of its birth, if it eats a great deal, and the stools are greenish, if it lies quite straight in bed, and throws its head back, burying the occiput in the pillow, we may be sure that hydrocephalus will occur. When Dr. Gölis is apprehensive of this disease, he inquires if the children are cross, if they have become indifferent to what they most liked before, if they sigh frequently, and sometimes vomit, and if they often stare in a fixed and dreamy manner. A nasal utterance is also to be reckoned among the pathognomonic signs, and also the fact of the child's attempting to catch hold of things on one side. In a word, the look, the physiognomy, the

gestures of a child threatened with hydrocephalus, are all full of

meaning to the experienced practitioner.

A symptom never wanting in acute hydrocephalus, is a speedy diminution of the size of the abdomen. In children thus affected, the belly, however large, becomes flat during the inflammatory stage; and during the period of coma, this is the most certain diagnostic mark between acute hydrocephalus and typhus, in which the belly is most frequently tympanitic. However large the belly may have been before the disease, the bowels are so much retracted towards the vertebral column, that one might imagine that they had entirely disappeared. The most frequent causes are contusions of the head, concussion of the brain through falls, blows, &c.

When the disease is merely suspected, calomel and tartar emetic ointment may be employed by way of precaution. Calomel is generally the chief remedy in this disease; it is given in the dose of half a grain every hour or every two hours, or a grain every three hours, according to circumstances, such as the existence of

constipation.

The application of cold lotion to the head, and the use of nitre in the inflammatory stage, may be continued without inconvenience when effusion has taken place; because (says Dr. Gölis), when this period has once arrived, nothing can do much harm. He says, that cold effusions and the application of sulphuric ether to the head, which have been recommended by Formey in the stage of effusion, are of no use.

When acute hydrocephalus is accompanied by a watery diarrhoea, effusion does not easily take place. A favourable issue may also be anticipated if the child recovers the power of moving his head, and can turn it in every direction. It is well also, to find the pulse losing its usual slowness, and becoming again regular and

febrile: this is a sign of the commencement of absorption.

DISEASES OF THE CHEST.—Simple Cough. When there is merely a simple cough, Dr. Gölis gives the infusion of liquorice root with the emollient decoction already mentioned, adding a few drops of Sydenham's laudanum and simple oxymel. If the cough becomes thick, instead of simple oxymel, he uses oxymel of squills. Thus, for a child two years old he prescribes R. Inf. Glycyrrhizæ rad.; Decoct. Lini Sem. (vel Althææ) aa 3j.; Laudani Sydenhami gtt. ij.; Oxymellis Simpl. vel Scillæ 3ij. M. sit dosis coch. j. min.

When the cough is obstinate, or there is a neglected catarrh, Dr. Gölis strongly recommends dulcamara in the following form:

Inf. Glycyrr. et Decoct. emoll. 3iij.; Extr. Dulcamaræ gr. x.; Laudani Sydenhami gtt. ij.; Oxym. Simpl. 3iij. M. The dose is to be a teaspoonful for a child two years old.

In the case of a child of four or five who ha

In the case of a child of four or five, who had an obstinate cough with fetid expectoration, Dr. Gölis gave a powder composed of equal parts of liquorice and vegetable charcoal, in the dose of a

teaspoonful, several times a day, and prescribed in addition a ptisan of lichen.

Convulsive Cough.—Hooping Cough. Dr. Gölis always treats hooping cough according to the prevailing character of the disease, and he teaches that we cannot be successful in the treatment, unless we know if the epidemic is of an inflammatory, catarrhal, or purely nervous kind. When there is no fever, and the disease is nervous, he prescribes R. Moschi, gr. iij.; Extr. Opii. aquosi gr. ss.; Acac. gumm. pulv. 9j.; Sacchari albi, 5ij. M. and divide in pulv. vj.; sumat j. tertiis horis.

Dr. Gölis also extols belladonna in hooping cough; but this remedy requires for its employment, that the disease should be purely spasmodic, and not inflammatory, or catarrhal. When belladonna is indicated, he prefers the root in the following form: R. Bellad. rad. gr. j.; Extr. Opii aquosi, gr. ss.; Sacchari albi, gr. lxxx. M. ft. pulv. viij.

One of these powders is to be taken morning and evening, or every three hours, according to circumstances, until the face becomes more animated.

At the same time he prescribes the following embrocation to be rubbed upon the epigastrium: R. Tr. Aromat. 3ss.: Laudani Syden. 3ss.: or the following mixture, which is spread upon soft leather, and applied to the region of the stomach: R. Electuar. Anodyni: Bellad. rad. pulv.: Laud. Syden. aa 9j.: Gumm. Arab. 3j.

A ptisan is to be employed, made of dulcamara, and the roots of liquorice and mallow.

In an epidemic hooping cough which occurred at Vienna in 1816, Dover's powder combined with emollients produced the most fortunate results, when administered as follows: R. Inf. Glycyrr. rad.; Decoct. Emoll. aa 3iss.; Potassæ Nitr. gr. x.; Pulv. Doveri, gr. j. vel. ij.; Laud. Syden. gtt. ij.; Syr. Simpl. j. A teaspoonful of this mixture was given every hour to a child two years old.

Frictions with tartar emetic ointment torment children, and, for the most part, uselessly; and even when they lessen the hooping cough, the convalescence of the little patients is always protracted, principally because frictions of this kind destroy the appetite for a long time.

If there is no fever during the second stage of the disease, children bear cold drinks very well; otherwise, all their drink must be lukewarm.

Improvement begins as soon as the intervals between the fits of hooping increase. The disease is often succeeded by an obstinate cough, during which the children throw up sputa, as if they were phthisical. They should then take a decoction of saloop, fourteen ounces being made from fifteen grains, and an ounce of syrup of poppies added; and an infusion made of one ounce of mallow, and half an ounce of dulcamara and liquorice root.

Periodic Asthma of Children. In this affection Dr. Gölis prescribes: R. Moschi, gr. ij.; Mucil. Acac., 3ij.; Aq. Tiliæ flor., 3ij.; Ammon. Succin. gtt., ij.; Syrupi Anthem., 3ss.; M. A teaspoonful is to be given every hour to a child of a year old.

At the same time he orders warm baths, to which pearl-ash and an infusion of chamomile are added. The child remains a quarter or half an hour in the water, and is then immediately wrapped in warm linen and put to bed; the whole being done to promote diaphoresis. The potion is also given: R. Valerianæ rad., 3ss.; Fiat Inf., 3iij. tum adde; Ammon. Succin. gtt. viij. ad x.; Syr. Anthem., 3ss. At a later stage, blisters are applied to the chest.

Periodic Suffocation. Fits of suffocation are sometimes observed in children; they become quite blue, and out of breath. These fits return, but not at regular intervals. According to the experience of Dr. Gölis, they may be caused by an effusion of water in the brain; or they may indicate the first stage of chronic hydrocephalus. If the disease is accompanied by fever, this must be combated first of all; and it will then be well to administer small doses of calomel alternately with the following powder; R. Valerianæ pulv. gr. v.; Calcis carb.; Sacchari albi aa 9ss.; M. ut ft. pulv. t. d. sumendus. Baths, impregnated with chamomile and pearl-ash, are also to be ordered, as in the case of periodic asthma.

Palpitation of the Heart. Dr. Gölis treats this as a separate disease, and orders a few drops of the following mixture to be taken three times a day: R. Tr. Digit., 3iss.; Ammon. Succin.,

3ss.; Laudan. Syden., 9j.; M.

Hemoptysis. In this disease Dr. Gölis extols an emulsion of gum combined with decoction of digitalis, particularly when detraction of blood in any shape is contra-indicated by a state of cachexia. This cures the hemoptysis without leaving any induration behind as astringents do, in consequence of which a little hard cough usually remains.

DISEASES OF THE ABDOMEN. Diarrhæa. When diarrhæa in children is accompanied by pain in the belly, we may always admit the existence of a sub-inflammatory state. Diluents alone must then be administered. In simple ordinary diarrhæa, a mixture is prescribed, consisting of two ounces of a decoction of mallow and saloop, and two drops of Sydenham's laudanum. The dose is a teaspoonful every hour or every two hours.

In catarrhal diarrhœa Dr. Gölis prescribes as follows: R. Decoct. Althææ, Zij; Extr. Dulcam. gr. iij.; Laud. Sydenh. gtt. ij.;

Syr. Papav. 3ss.; M. sit dosis coch. j. min. omni horâ.

If a diarrhea of this kind lasts long, camphor in small doses becomes an excellent remedy; it produces a peculiar and comfortable sensation of warmth in the stomach. Thus he prescribes, R. Camph. solutæ gr. ss.; Decoct. Emoll. 3j. ad 3jj.; Laudani gtt. j. ad ij.; M. sit dosis coch. j. min. omni horâ vel omni 2 â h. When a tonic is required in chronic diarrhea, he uses calumba;

but there must be no fever, and the intestines must not have been despoiled of their mucus by violent alvine evacuations. Half a drachm of calumba and ten grains of saloop are to be boiled for a quarter of an hour, so that the strained decoction may amount to three ounces; half an ounce of syrup of chamomile is then to be added, and the dose is to be a teaspoonful every hour. Or a mixture may be employed consisting of two ounces of a decoction made with eight grains of saloop, eight or ten grains of powdered calumba, two drops of laudanum, and half an ounce of syrup of poppies. To be given like the last mixture, shaking the bottle every time.

If atony already exists, fifteen drops of Hoffmann's elixir (Sp.

æther. Sulph. C.) may be substituted for the calumba.

In a chronic diarrhæa following a mucous fever Dr. Gölis prescribed R. Arnicæ rad. 3ss.; Calumbæ rad. 3ij. Macera per horæ quartam partem, et post colationem restent unciæ quatuor, tum adde Laudani gtt. ij.; Syr. Menth. 3ss.; the dose to be a teaspoonful for a child three years old. When diarrhæa causes a flaccidity of the intestines, Dr. Gölis prescribes, Aq. destill. ceras. nigr. 3iij.; Extr. Taraxaci 3ij.; Extr. Rhei 3ss.; Ammon. Muriatis gr. vi.; Syrupi Menthæ 3j. M. sit dosis coch. j. min. He orders, moreover, the whole abdomen to be rubbed with the Ung. nervinum, made stronger by the addition of camphor.

When a chronic diarrhea is complicated with worms, Gölis prescribes as follows: R. Valerianæ rad. 3ss.; Calumbæ rad. 3j. Aquæ q. s. ut post colationem infusi, restent 3v., quibus adde, Camph. solutæ gr. j.; Laudani gtt. ij. vel iij.; Syr. Aurant. 3ss. The

dose to be a teaspoonful for a child four years old.

In rachitic children diarrhœa produces prolapsus of the rectum.

The Cholera of Children. When this disease is of an inflammatory kind, it is very serious; gangrene is apt to occur, and the child is lost. A sinapism applied to the belly until the skin begins to grow red may sometimes save the little patients. In ordinary cholera, Dr. Gölis gives the following medicines internally: R. Inf. Glycyrr. c. Decoct. Emoll. 3ij.; Laudani gtt. ij; Sp. Æther. Sulph. Comp. gtt. vi.; Syr. Papav. 3ij. And the following ointment to be rubbed upon the epigastrium: R. Ung. nervini 3ss.; Camph. 9ss.; Opii gr. ij.

The ether, however, is not always advisable at the beginning of the disease, and Dr. Gölis then prescribes a potion consisting of a decoction of three ounces made with eight grains of saloop, with two drops of laudanum, and half an ounce of syrup of poppies.

Vomiting. Dr. Gölis treats cases of obstinate vomiting in the

same manner as cholera.

Constipation. The following remedies are prescribed against ordinary constipation: R. Inf. Glycyrr. et Decoct. emoll. 3iij.; Magnesiæ Sulph. zj. ad zij.; Syr. 3ss. Or else, R. Inf. Fæniculi, Aq. Fæniculi aa 3ij.; Tr. Rhei aquosæ zij.; a teaspoonful to be taken every hour.

Colic. Colic may be easily recognized in children; they are

restless, cry constantly, stamp on the ground, draw the thighs up to the belly, have twitchings of the face during sleep, and awake cry-When we examine a child whom we suppose to be suffering from colic, we must not neglect to see if its sufferings proceed from some external cause, such as the pinching of some part of its dress, or During attacks of colic children pass their the pricking of a pin. water often and in considerable quantity. Different internal causes may cause colic; such as, -1st, Acidity, which is known by the stools being green; in this case the following mixture is given; R. Inf. et aquæ Fæniculi aa 3ij.; Magn. Carb. gr. xv.; Laudani Sydenhami gtt. ij.; Syrupi 3ss.; -2dly, flatulence, which is known by borborygmi and wind. The following mixture is then given, with or without the addition of magnesia: R. Aquæ Fæniculi 3ij.; Mucil. Acaciæ zij.; Laudani gtt. ij.; Syrupi Anthem 3ss.; -3dly, indigestion, in which case the following mixture is prescribed: R. Aq. Fæniculi 3ij.; Tr. Rhei aquosæ zij.; Magn. Muriatis 9ss.; Syrupi 388.

Worms. Dilatation of the pupil is not a pathognomonic sign of the existence of worms, for this symptom is also found in cases of infarctus of the intestines. Dr. Gölis's ordinary remedy against worms is as follows: R. Hydr. Subm. gr. iij.; Valerianæ pulv. 9j.; Sacchari albi 3j. This is divided into four or six powders, according to the age of the patient, and three are to be taken daily.

Sometimes he adds a scruple of wormwood seeds. He also prescribes the following formula: R. Inf. Glycyrr.; Decoct. emoll. aa. 3ij.; Extr. Valerianæ 9ss.; Oxym. Scillæ 3ij. The dose is a teaspoonful.

And afterwards the following purgative: Hydr. Subm. gr. iij. Jalapæ pulv. 9j.; Sacchari albi 9ij. This is to be made into four or six powders, one of which is to be taken every evening.

The following anthelmintic is also employed by Dr. Gölis: R. Inf. Glycyrr.; Aq. Tanaceti aa zij.; Fuci Helminthocorti pulv. 9j.; Oxym. Scillæ zss. A teaspoonful to be taken every hour.

In cases of ascarides clysters of milk are administered in which garlic has been boiled, or clysters of a decoction of garlic and wormwood. To draw out worms of this species, the children are placed on a chamber vessel into which warm milk has been poured.

Infarctus of the Intestines. In this disease Dr. Gölis gives merely resolvent medicines. R. Inf. Fæniculi; Aq. Fæniculi aa \bar{z}_{ij} ; Potassæ Supertart. $\partial ss.$; Oxym. Scillæ z_{ij} . The dose is a

teaspoonful.

Some other resolvent salt may be substituted for the cream of tartar. Externally he employs equal parts of mercurial and juniper ointment rubbed upon the abdomen; and at the same time he puts the patient on the use of acorn coffee, and tepid baths. According to Dr. Gölis there is a certain globular shape of the cheeks which is a true diagnostic sign of intestinal *infarctus* (obstruction) in children. This bulging out corresponds to the malar bones, and looks as if an almond had been placed under the skin; it is particularly

obvious when the child laughs or cries. When this symptom is

present, the case is hopeless.

Icterus neonatorum (Jaundice of new-born children.) The following prescription is used in such cases: R. Aq. Fæniculi; Inf. Anthem. aa 3j.; Magn. Subcarb. 9ss.; Tr. Rhei Aquosæ 3ss; Syr. Papav. 3ss. The dose is a teaspoonful. If the bowels are confined, the following mixture may be given: Inf. Glycyrr. Aq. communis aa 3j. ad 3ij.; Extr. Taraxaci 3j. ad 3ij.; Sodæ; Sulph 3ij.; Syr. Mannæ 3ss. The dose is a teaspoonful.

Prolapsus of the Rectum. When the intestine has been reduced,

Dr. Gölis orders clysters of cold lime water.

Poisoning by Opium. In this case he ordered a bath with vinegar of half an hour's duration, and a teaspoonful of the following mixture every quarter of an hour. R. Inf. Glycyrr.; Decoct. emoll. aa

3j. Ammon. Succin. gtt. viij.

Dropsies. Chronic Hydrocephalus. It is sufficient to have seen one hydrocephalic child, to have a just notion of their physiognomy. These patients are generally known at first by a heavy and awkward manner of walking; they are apt to trip and fall, and often cross their feet. They like to have something continually in their mouth and fingers; they also put their fingers into their nose and ears; and their eyes are convulsed; this is a never-failing symptom.

If a cough accidentally occurs in the course of chronic hydrocephalus, it easily changes into fits of periodic suffocation, which has been treated of above. If the disease passes into an acute form

the children soon die.

In the treatment, calomel is the chief remedy. Children under a year old take first of all an eighth of a grain, and afterwards a quarter of a grain, twice a day. At the same time their head is rubbed with equal parts of mercurial and juniper ointment, taking

care to keep it warmly covered.

As far as the treatment is concerned, the most essential point in the diagnosis of chronic hydrocephalus, is to ascertain whether or not the disease is complicated with cachexy. When there i cachexy there is generally also some organic disease, as of th spleen, for example, or some engorgement; and it is in such a case that calomel is the sovereign remedy, particularly if the bowels are confined. Besides the use of calomel, the hypogastric and splenic regions are rubbed with the ointment mentioned above. must never omit to treat the cachexy at the same time. Dr. Gölis combats it with bark. One or two drachms of cinchona are to be boiled for a quarter of an hour, and eight grains of saloop then added. The boiling is then to be continued for another quarter of an hour, so that the decoction when strained may amount to four ounces, and half an ounce of syrup of poppies is then to be added: the dose is a teaspoonful every hour.

In a case of semi-paralysis, the consequence of chronic hydrocephalus, Dr. Gölis prescribed arnica in the following form: R. Inf. Glycyrr. et Decoct. emoll. 3ij.; Extr. Arnicæ gr. iv.; Oxym.

Scillæ 3ij.

Partial external Hydrocephalus. This disease, which is also called cedema of the scalp, is cured to a certainty by the occasional application of a caustic to one of the cedematous points; the best is lunar caustic. The absorbing power of the lymphatics is excited by this kind of irritation. Dr. Gölis generally moistens the swelling and then touches it in several places with the nitrate of silver; and if the result is not satisfactory at the end of a few days, he has recourse to caustic potash, of which he takes a few frustula, and applies them to various points by means of adhesive plasters. Frictions with mercurial ointment are likewise employed. Lastly it is right to keep up a uniform temperature by means of bags filled with aromatics.

If the ædema is confined to a small spot, it may be opened; but this would be dangerous if the case were complicated with internal hydrocephalus.

In a case where cedema of the scalp had followed the suppression of a porrigo, we saw Dr. Gölis administer calomel, perhaps with the intention of preventing a dropsy of the ventricles of the brain.

Hydrorachis. This disease is characterized by a peculiarity in the walk of the children affected by it: they totter as they go; at each step they turn their feet inwards, and always put the heel to the ground first. These peculiarities increase from day to day, and the little patients end by being unable to walk alone, and their gait always retains the characteristics which we have pointed out Hydrorachis is most usually the result of myelitis, (inflammation of the spinal marrow.) Calomel is the principal remedy, to which are added blisters to the loins.

Ascites. In this species of dropsy Dr. Gölis gives three doses of cream of tartar a day, together with the following potion: R. Inf. Glycyrr.; Aq. Fænic. aa 3ij.; Extr. amari gr. xij.; Sp. Æther. Nitr. gtt. xv.; Oxym. Simpl. 3ss. At the same time he orders the abdomen to be rubbed with a mixture of mercurial and

juniper ointment.

He also prescribes the following potion: R. Inf. Glycyrr.; Aq Fænic. aa 3ij.; Potassæ Subcarb. gr. ss.; Aceti Scillæ 3iss.; Laud. Sydenh. gtt. ij. When worms are present at the same time, he prescribes: R. Aq. Fæniculi 3iv.; Extr. Scillæ gr. j.; Camph. gr. iss.; Syr. Fænic. 3iv. And when the dropsy is complicated with scrofula, R. Inf. Glycyrr.; Decoct. emoll. aa 3ij.; Extr. Conii gr. viij.; Potass. Acet. liquidæ 3iss.; Oxym. Scillæ 3iij. The dose to be a teaspoonful every hour.

Scrofulous Diseases. Whether the scrofulous disease be in its commencement, or already established, Dr. Gölis always gives the following powder, after having first alleviated the most urgent accessory symptoms: R. Test. Præp. 3ss.; Guaiaci resinæ; Limaturæ ferri aa 3ss.; Sacchari albi 3iij. The dose of this powder is a pinch (greater or smaller, according to the age of the child,)

taken twice a day.

Such is the powder which Dr. Gölis prescribes at the hospital.

In private practice he substitutes his anti-hectic scrofulous powder which is made of equal parts of laurel berries, nutmeg, and hartshorn shavings. But the berries must first be deprived of their acrimony, which is done by baking them in bread. The antihectic scrofulous powder is then administered with equal parts of liquorice powder, in the dose of a large pinch three times a day, or in the following form: R. Pulv. Anti-hect. scrof. Gölis. ij. (vel plus); Guaiaci resinæ; Limaturæ ferri aa 3ss.; Sacchari albi 3ij. All these powders may be continued for a length of time; but whenever any inflammatory disposition exists, the resin of guaiac is omitted. In addition, the children are to have a bran bath three times a week. The diet consists of broth and milk.

Scrofulous Exanthema. In this case Dr. Gölis gives his ordinary powder, taking care however to substitute a scruple of antimonial æthiops (sulphuret of mercury and antimony) for the iron filings; and giving at the same time wild pansy tea for drink. If there is a syphilitic taint, instead of the iron filings, he gives the

black sulphuret of mercury.

Scrofulous Eruptions of the Head. (Achores Scrofulosi.) No particular remedy is employed against eruptions of this kind; on the contrary, it is well if they appear, for the scrofulous disease is terminated the sooner. If an eruption on the scalp dries up quickly, the neighbouring glands are apt to swell and ultimately suppurate. There is a close connexion between the abdominal glands and the head; an eruption on the latter often disperses the engorgement and induration of the abdominal glands, and these glandular affections may sometimes be cured by producing an artificial eruption on the head, by means either of powdered cantharides, or by the greyish dust which is obtained by currying horses.

Bony Tumours of a Scrofulous Nature. Tumours of this kind are principally observed on the fingers and toes, and sometimes on the feet and arms. The tumour grows larger, becomes round and red, and ultimately opens. It is then seen that the bone is carious. Sequestra come away by degrees, and whole phalanges may be destroyed. Nevertheless, the disease gets well, but slowly, in eighteen months or two years. The limbs, though shortened, can again be employed. We must carefully abstain from stimulating treatment when we have to do with ulcers arising from scrofulous caries; local stimulants would merely aggravate the disease. The best remedies are emollient fomentations, cataplasms, and bran baths; and the medicines recommended against scrofula are to be employed internally, and also coltsfoot tea. This method often succeeds extremely well.

When it is a simple scrofulous ulcer, Dr. Gölis generally orders it to be sprinkled with equal parts of powdered rhubarb and powdered charcoal, and sometimes with the latter alone; and for lotions he uses an infusion of scordium, (Teucrium Scordium.)

If scrofulous tumours appear behind the ear, they must be

opened as soon as possible, as they quickly cause caries of the

mastoid process.

Otorrhæa. This flux almost always depends on a scrofulous taint, and must be treated accordingly. Externally nothing is to be used but a weak decoction of bran as a lotion; if caries exists, an infusion of mallow and scordium is to be employed as an injection. Styptic remedies, used with the intention of stopping

the discharge, might easily produce hydrocephalus.

Subcutaneous Lymphatic Tumours. Tumours of this kind soon yield to the employment of the nitrate of silver, with which they are touched in the manner mentioned when treating of partial external hydrocephalus. Besides this, caustic emollient fomentations are used. If cachexia or slow fever exists, these affections are separately treated. (See Slow Fever afterwards.) When the tumours are opened, if they look ill they are sprinkled with a mixture of finely-powdered rhubarb and charcoal, as in the case of scrofulous ulcers.

Sanguineous Tumours of the Head. Dr. Gölis recommends us not to open these tumours when met with in new-born children, and asserts that children often die in consequence of such an operation. He touches them with lunar caustic, like lymphatic tumours and ædema of the scalp; and asserts that they easily yield to this remedy. He also employs the same method in cases of nævi materni, and removes them by thus exciting suppuration.

Rickets. This disease is sometimes ushered in by a state of weakness before there is any visible deformity of the osseous system. The children neither can nor will go upon their feet; and they cry and groan when lifted; this is the first stage of the disease. At a later period the patients begin to breathe with difficulty; and they are often seized with fits of periodic suffocation. They perspire abundantly, especially about the head: the state of

rickets has now begun.

Rickety children have a peculiar manner of holding up their legs when they are lying at ease upon their back. They keep them crossed and draw them up, so as to enclose the abdomen between the thighs. Their urine has a specific odour—that of mice; their weeping and cries have something characteristic, when the disease is fairly established; and an experienced ear may always guess the disease by this sign alone. They are seldom thirsty, even when suffering from an inflammatory fever, with or without local affection. Their head is frequently very large, besides the deformity which often occurs in this part, and they have generally more capacity than other children. It is very seldom, indeed, that they are affected with hydrocephalus.

Some rickety children, in spite of their disease, present the aspect of health; this is rachitis florida. Such children are usually of a scrofulous habit, and in them the malady probably originates, from a real want of osseous matter. The treatment is the same in this case; but the prognosis is more favourable, and

the little patients are sometimes quickly cured in spring or summer. Before beginning the treatment, all the accessory symptoms, such as cough, diarrhea, &c. must, of course, be removed; and Dr. Gölis then generally prescribes the following powder with the best results. R. Testarum præpar. 3ss.; Ferri limaturæ, 3ss.; Sacchari albi, 3ij.

The dose is a pinch morning and evening. A bath of hay flowers is to be taken at the same time, three times a week. The diet consists of acorn coffee, with milk once or twice a day, broth, and meat; farinaceous food is forbidden. He does not allow them to sit, or to be much carried in arms; the horizontal position

is the best, but they must not lie on feather beds.

It is an error, according to Dr. Gölis, to suppose that the oxides of iron are borne more easily than the filings. He has never succeeded with madder in the cure of rickets, even when he has used it with great perseverance. The most troublesome complication

of this disease is hooping-cough.

Chronic Tension of the Skin. (Cutis tensa chronica.) This disease, though not very rare, is not at all known; it is characterized by a peculiar tension, of a shining red, of the skin of the face, particularly around the mouth; or of the hollow of the hands, the soles of the feet, and the upper and interior part of the thighs. By degrees the stretched parts become harder and wrinkled: the lips become covered with crusts, which sometimes extend to the cheeks, and under these crusts there is an acrid humour, which corrodes the flesh in patches. Ulcerations also form on the thighs, around the genitals, on the soles of the feet, and on the hands.

This disease usually depends on a syphilitic taint, and the treatment is perfectly in accordance with this theory: calomel is the only remedy, the specific. Dr. Gölis prescribes it in the dose of a quarter or a third of a grain, according to the child's age, three times a day. He gives a decoction of wild pansy in milk for drink, and orders a bran bath occasionally. The disease, however, is rarely, if ever, cured without leaving traces behind, especially about the mouth. Caries, or some other disease of the osseous system, is a frequent consequence. In less serious cases

the disease degenerates into a crusta lactea.

Blue Fever. (Febris cærulea.) The disease, which Dr. Gölis designates by this name, is an affection sui generis, that has not yet been described, and must not be confounded with the morbus cæruleus, which is caused by a disease of the heart. It occurs only in children between four and twelve months old, and usually among those of the poor, who are fed on coarse farinaceous food, and live in damp unwholesome dwellings. The disease occurs in paroxysms only; the children turn blue suddenly, their breathing is painful, their pulse small, hard, and spasmodic. The paroxysm lasts for some time, disappears, and returns again; but the intervals are shorter from day to day, and at last the paroxysms be-

come continuous. The skin is often covered with clammy perspiration, and death takes place suddenly. On inspection, the vessels are found gorged with blood. With the exception of the fever, which accompanies the paroxysms, the disease has all the characters of a neurosis, and the medicines from which Dr. Gölis has derived most advantage, are the succinate of ammonia and other antispasmodics, combined with mucilaginous remedies. Here is his formula: R. Aq. Anthemidis, \(\frac{z}{3}ij.\); Ammon. succin. liquid. gtt., vj.; Laud. Sydenhami gtt. j.; Tr. Castorei gtt. vj.; Mucil. Acaciæ; Syrupi Papav. aa \(\frac{z}{3}\)ss. The dose is a teaspoonful every hour. In addition to the internal remedies, he orders tepid alkaline baths, half a gallon of ley being added to a bath.

When the spasm is relieved, it is proper to give calomel as a

purgative, or a mixture of rhubarb and magnesia.

Children moreover are subject to a particular chronic sweating, which is not the disease called by the French la suette, because it is unaccompanied by fever. Here the skin becomes blueish, and, as it were, transparent. This may be combated, according to Dr. Gölis, by the administration of a light infusion of bark and milk, and frictions, with almond oil, repeated several times a day.

Slow Fever. Slow or hectic fever is, as every one knows, the result of very different diseases; emaciation of the neck is one of the first symptoms. Dr. Gölis here gives acorn coffee, or a decoction made by boiling one or two drachms of cinchona for a few minutes, and then adding eight grains of saloop. This is again boiled for a few minutes, so that the strained liquor may amount to four ounces, and then half an ounce of syrup of poppies is added. The dose is a teaspoonful every hour. According to circumstances he orders the following ointment: R. Ung. Althææ; 3ss.; Ung. Hydr. 3ij.; M.

A piece, the size of a haricot bean, is to be rubbed upon the abdomen morning and evening. In the morning, the children have acorn coffee; at noon and in the evening, a panada, with the yolk of an egg or ground rice. When the hectic fever is in an advanced stage, and is accompanied by diarrhea, Dr. Gölis prescribes as follows: R. Decoct. Altheæ rad.; Inf. Glycyrr. aa 3ij.; Laud. Sydenhami gtt. ij.; Ammon. Succin. liquid. gtt. xv. Sometimes, also, an equal quantity of rue water is substituted for

the decoction of mallow.

On the following formula is prescribed: R. Aq. Tiliæ flor., \(\)ij.; Mucil. Acaciæ, zij.; Ammon. Succin. liquid, gtt. xv.; Syr. Papav., \(\) ss.; M. The dose to be a teaspoonful every hour.

When scrofulous children are attacked by hectic fever, the dis-

ease terminates in hydrocephalus six times out of seven.

Intermittent Fever. Dr. Gölis often treats this disease with perfect success, by giving fifteen grains of powdered oyster shells alone, three times a day. He also prescribes: R. Inf. Glycyrr; Decoct. Altheæ aa \(\frac{7}{3} \)j. ad \(\frac{7}{3} \)ij.; Ammon. Muriatis, \(\frac{9}{3} \)s.; Extr. Taraxaci, \(3j.; M. \) Sum. coch. j. max. \(2 \) q. hor\(\frac{2}{3} \).

If the case is complicated with visceral engorgemens, he uses frictions with equal parts of Ung. nervinum, and mercurial ointment.

Neuroses. Convulsions of new-born Children. These convulsions are usually caused by cerebral irritation; and Dr. Gölis always opposes the use of stimulating antispasmodics, which, he says, only aggravate the disease. Antiphlogistics alone are suitable, namely, calomel in small doses, baths, and emollient clysters.

Catalepsy. The author of this article saw but one case of catalepsy while attending Dr. Gölis's practice, and this case was complicated with worms. After a mild aperient, calomel was ad-

ministered in combination with valerian.

Epilepsy. In a case of epilepsy, Dr. Gölis prescribed as follows: R. Test. præp. pulv., 3ss.; Valer. rad. pulv.; Ferri limaturæ aa 3ss.; Sacchari albi, 3iij. The dose to be two or three pinches a day.

Trismus. Dr. Gölis has never been able to save a new-born

infant attacked with this disease.

Diseases of the Skin. Scarlatina. Dr. Gölis's treatment changes according to the character of the fever. When the eruption comes out but imperfectly, the body is ordered to be washed with tepid water. Dr. Gölis extols this proceeding extremely, and never substitutes diaphoretics for it in the beginning, as they

might prove injurious.

Measles. When scrofulous children are attacked with this disease, it is apt to give rise to hectic fever. Measles, like scarlatina, must be treated according to the character of the fever and other circumstances, sometimes by antiphlogistics, and sometimes by diaphoretics. The following is Dr. Gölis's diaphoretic prescription in this case: R. Aq. Tiliæ flor., 3iij.; Liq. Ammon. Acet., 3j.; Syr. Althææ, 3ss.

Tinea Capitis. (Porrigo). Tinea, like the crusta lactea and herpes, is frequently of a scrofulous origin; for as the scrofulous virus produces the crusta lactea on the face, so it causes tinea on the head, and herpes on the body. It is worthy of remark, that if a well-dried porriginous crust is powdered, and another person is rubbed with this powder on any part of his body, the spot thus

rubbed becomes covered with an eruption.

The internal treatment of porrigo is that which is suited to the scrofulous affection. A decoction of wild pansy in milk is given for drink, and an ointment is rubbed on the dry crusts, consisting of fifteen grains of red precipitate to half an ounce of fresh butter. Emollient fomentations are used to soften the crusts, and make them fall off.

In a case of affection of the chest, arising from a suppressed porrigo, Dr. Gölis prescribed as follows: R. Test. Præp., 3ss.; Guaiaci resin., 3ss.; Hydr. & Antim. Sulphureti, 9j.; Sacchari albi, 3iij. A pinch to be taken morning and evening.

Crusta Lactea. (Porrigo larvata.) In this eruption, Dr. Gölis

always employs an anti-scrofulous treatment. In this, as in all other eruptions of a scrofulous nature, coltsfoot is to be preferred to the wild pansy. The crusta lactea sometimes changes to a serpiginous crust; but in such cases a syphilitic taint is always to be suspected.

Chronic Pemphigus. An anti-scrofulous treatment is proper in

this disease likewise.

Itch. There is a species of itch, or rather of psoric disease, which is not contagious; it is often observed after vaccination. Scrofulous itch too is not infectious.

The antipsoric treatment of Dr. Gölis is as follows: internally he prescribes—R. Magnesiæ Muriatis; Sacchari albi, aa 3ij.; Sulph. sublim., 3j. Half a teaspoonful, or more, to be taken three times a day.

Coltsfoot tea is to be given as drink, and a mixture of sulphur ointment and soap is to be rubbed on externally. These frictions are to be performed twice a day, on the parts where there are no

psoric pustules.

Intertrigo. (Chafing). The following is Dr. Gölis's method of treating this erythema, which occurs in children between the thighs and around the genitals. He foments the affected parts with the following mixture: R. Aq. Calcis, lbss.; Plumbi Acet. gr. xv. At the same time, he endeavours to excite an eruption on the head by means of Garou's ointment. Internally, he administers calomel in the dose of a quarter or half of a grain, and gives wild pansy tea.

If the intertrigo is of a syphilitic nature, the fomentations are made with the yellow wash consisting of a grain of corrosive sub-

limate to four ounces of lime water.

Aphthæ. In this disease he prescribes R. Mellis Rosæ 3j.; Boracis, gr. xv. M. This is to be applied to the affected parts

four times a day.

The following formula is also used: R. Mellis Rosæ 3j.; Syr. Mori 3ss.; Boracis 3ss. When there is much inflammation of the mouth the borax is too irritating, and the honey alone should be used. We must never lose sight of the fever by which aphthæ may be accompanied. The salivation induced by the disease often causes dyspepsia, which is remedied by extract of dandelion, dissolved in an aromatic water.

ULCERATION OF THE NECK OF THE UTERUS.

Dr. MAGISTEL has given eight cases of this disease in the Gazette Médicale. In the first one, the patient was a lady aged 38, and the disease was caused by wearing a pessary. A cure was effected, in two months, by removing the instrument, employing emollient injections, and by one application of a solution of the nitrate of mercury.

Case II. A lady who had long suffered from leucorrhea, and had formerly been affected with venereal sores, put herself under

the care of our author. By means of the speculum two irregular ulcers were detected on the cervix uteri. Sarsaparilla and corrosive sublimate were prescribed, and the ulcers touched with creosote. As the creosote seemed to do no good, the nitrate of mercury was substituted, and the tubercles around the sores were touched with nitrate of silver. Injections were thrown up twice a day, and the vagina was plugged to keep its parietes asunder. The patient was completely cured in ten weeks, during which she had taken twelve grains of the corrosive sublimate. The gums were scarcely swelled. The cicatrices of the ulcers were of a blueish colour.

Dr. Magistel observes, that since he treated this patient he has twice employed creosote without success: some benefit was apparently produced for the first few days, but the ulcer soon reassumed its habitual state.

Case III. A lady, aged 24, who had been married but six months, complained of heat, pruritus vulvæ, and a mucous leucorrhæa. Examination disclosed an ulcer at the neck of the uterus, as well as some excoriations of the vulva. A cure was easily effected by twelve leeches applied to the anus, injections of decoction of mallow, topical baths, acidulated drink, and the insertion of plugs in the vagina, which were renewed twice a day. The discharge had nearly ceased at the end of six days. The ulcer was then touched with the acid nitrate of mercury, which healed it in ten days more. Decoction of hemlock was now injected, and ten grains of black oxide of iron taken daily; and an infusion of hops for diet drink. The first time that the catamenia returned, they were followed by a whitish discharge which lasted two days; the leucorrhœa has not appeared again, but our author has warned his patient that the smallest error in regimen would cause a relapse. Dr. Magistel thinks that this was a case of primary leucorrhœa, produced by amorous excess, and the neglect of cleanliness.

Case IV. A lady, aged 42, who had borne seven children, and had long been subject to leucorrhea, was attacked with violent menorrhagia on the 21st of May, 1834. A bleeding, a mustard poultice to the back, the infusion of ratanhy, and tannin pills, afforded temporary relief; but the hemorrhage recommenced the tollowing day, on the patient's getting out of bed. Cold aluminous injections, and the application of ice to the hypogastrium, stopped it for a time, but during the night it returned with greater violence than ever. During our author's absence, one of his friends prescribed the ergot of rye, in the dose of eight grains every two hours. The hemorrhage, however, still continued, and about eight in the morning, Dr. Magistel found the patient in a state of extreme prostration, with a thready pulse, and a yellow tint on her countenance. The vagina was now plugged. Three days afterwards the patient had a shivering fit: the plug was removed, and some fetid matter issued forth, whose partial re-absorption may have been the cause of the shivering. On the 25th of May, a large ulcer was discovered

on the cervix uteri, and on the 1st of June, it was cauterized for the first time with the nitrate of mercury. Injections of a decoction of mallow and hemlock were employed immediately after the application of the caustic, and the plug was employed twice a day until the 10th of July. On the 2d of August the mucous membrane of the vagina was found to be healthy, and the ulcer entirely healed. The catamenia also re-appeared, but the use of the speculum always detected a white and viscous discharge at the orifice of the uterus.

This patient was soon cured by injections of conium morning and evening; pills composed of one grain of conium, and one grain of extract of aconite, (of which she sometimes took as many as six a day;) decoction of dulcamara; cupping on the sacrum and loins; tepid baths; Seidlitz water in small doses; enemata; the employment of the plug and of caustic; repose and vegetable diet.

Case v. Madame R. æt. 46, who had long suffered from leucorrhæa, and a reddish discharge, was attacked in the beginning of March 1834, with violent uterine hemorrhage. When our author was called in, the patient had already been bled, and cold injections, the application of ice to the hypogastrium, five grains of tannin taken in pills, sinapisms between the shoulders, and the infusion of ratanhy, had been used in vain. Dr. Magistel ordered the patient to lie down with the pelvis higher than the trunk, and prescribed 60 grains of ergot of rye; ten grains to be taken every two hours in sugar and water. The hemorrhage ceased after the fourth dose. An ulcerated scirrhus of the cervix uteri was afterwards discovered, which was removed by operation, and the patient recovered perfectly.

Our author remarks, that in the former case the ergot of rye failed in arresting the hemorrhage, but succeeded in this one, which he explains by the hemorrhage in Case IV., proceeding from vessels opening into an ulcer; while in the one just narrated, it

arose from the internal parietes of the uterus.

Case vi. A lady, aged 60, who had suffered from syphilis in her youth, sunk under cancer of the uterus, unattended with hemorrhage, which had lasted fifteen years. Our author narrates this as a remarkable case of cancerous diathesis; there was a cancerous pimple on the lower lip, a mass of cancer in the rectum, and the mucous membrane of the stomach crackled under the knife. He attributes the origin of the disease to the abuse of mercury.

The 7th case is that of a lady of rank, in whom a temporary cure of cancer of the uterus was effected by antiphlogistic treatment. The 8th is one of a druggist's wife suffering from the same disease, and concealing it from modesty. She died of hemorrhage.

The following are the author's general conclusions.

1. When there is the slightest symptom of uterine disease, the uterus must be examined with the speculum.

2. When ergot of rye has failed in arresting hemorrhage from

the uterus, we ought to have recourse to plugging, without going through the general remedies employed in such cases.

3. The slightest ulceration of the uterus must be treated by caustics.

4. The best caustic in these cases is the supernitrate of mercury.

5. In chronic catarrh of the vagina, the employment of a plug of charpie permanently remaining in the vagina may be of great advantage, by keeping the parietes asunder, and absorbing the secretion, either from the mucous membrane, or from ulcers, if there are any.

6. Women may sometimes live a long time with cancer of the uterus, if there is no hemorrhage.

TIC DOULOUREUX.

There are two papers on this subject in the 28th Number of the American Journal of the Medical Sciences. The first is by Dr. Chapman, who enters at some length into the history and varieties of the disease, and discusses the numerous remedies which have been proposed for its cure. Among these is galvanism applied in the method directed by Mr. Mansford, which the author affirms to have been lately employed with success by his friend, Dr. Harris, in three cases of the disease. As this singular method is quite unknown in this country, we shall give it at length.

"It was said that, in order to fulfil the indication stated at the commencement of this section, it was desirable to establish a negative point as near the brain as possible, and a positive one in some distant part of the body. Accordingly, a portion of the cuticle, of the size of a sixpence, being removed by means of a small blister on the back of the neck, as close to the root of the hair as possible, and a similar portion in the hollow beneath, and on the inside of the knee, as the most convenient place: to the wound in the neck a plate of silver, varying, according to the age of the patient, from the size of a sixpence to that of a half-crown, was applied, having affixed to its back part a handle or shank, and to its lower edge, and parallel with the shank, a small staple, to which the conducting wire was fastened. This wire descended the back till it reached a belt of chamois leather, buttoned round the waist; it then followed the course of the belt, to which it was attached, till it arrived opposite the groin on the side it was wished to be used; it then passed down the inside of the thigh, and was fastened to the zinc plate in the same manner as to the silver one. The apparatus so contrived was thus applied: a small bit of sponge moistened in water, and corresponding in size to the aperture in the neck, was first placed directly upon it; over this a larger piece of sponge, of the same size as the metallic plate, also wetted, was laid; and next to this the plate itself, which was secured in its situation by a strip of adhesive plaster passed through the shank on its back, another above, and another below it. If these be

properly placed, and the wire which passes down the back be allowed sufficient room, that it may not drag, the plate will not be moved from its position by any ordinary motion of the body. The zinc plate was fastened in the same manner; but, in place of the second layer of sponge, a bit of muscle, answering in size to the zinc plate, was interposed; that is, a small bit of moistened sponge being first fitted to the aperture below the knee, the piece of muscle, also wetted, then followed, and on this the plate of zinc. The apparatus thus arranged will continue in gentle and uninterrupted action from twelve to twenty-four hours, according to circumstances. This last is the longest period that it can be allowed to go unremoved: the sores require cleaning and dressing, and the surface of the zinc becomes covered with a thick oxide, which must be removed to restore its freedom of action: this may be done by scraping or polishing; but it will be better if removed twice a day, both for the greater security of a permanent action, and for the additional comfort of the patient." (Mansford on Epilepsy.)

Dr. Chapman observes, that parchment or buckskin may be

advantageously substituted for the piece of muscle.

The author gives three cases in which the neuralgia depended on irritation of the teeth, and was cured by extraction of the peccant tooth or stump. Dr. Chapman then gives six cases, depending on more or less obvious irritation of the spine. These were cured or relieved by leeches, moxa issues, and blisters applied to the morbid part.

Three other cases are attributed by the author to ganglionic irritation. The first was an elderly gentleman, who had lived in a "miasmatic district of country," but had escaped the ague. In place of this, however, he was afflicted with cramps of the stomach, succeeded by darting, poignant pains through the hypochondria, in the region of the kidneys, and of the bladder.

"The case had perplexed various physicians exceedingly, having been considered as gout, chronic hepatitis, nephritis calculosa, stricture of the urethra, &c. Being satisfied, on a careful perquisition, that these conjectures were incorrect, I inclined to believe that the case was of a neuralgic nature, originating in miasmatic influence; and the more so from having seen, during the prevalence of epidemic intermittent fever among us, which abounded in anomalies of all sorts, not a few similar instances. No tenderness, however, could I detect in any part of the spine nor were there any symptoms referrible to that source of irritation.

"Correcting the disorder of the chylopoietic viscera, which was conspicuous, by an alterative course of the bluepill, and the occasional interposition of a purge, I then administered largely the sulphate of quinine, alone, and with the piperine. These remedies were useful, though not decisive, and I next resorted to the sulphate of copper, which completely put an end to every

affection."

In the second case, the patient complained of cramps of the stomach and bowels, with occasional darting pains through the abdomen. He lost about sixty ounces of blood by venesection and leeching, with evident aggravation of the symptoms. The subnitrate of bismuth, combined with opium, was then given with some advantage, and the cure was completed by the carbonate of iron.

In the last case the patient was gouty, and the disease yielded to colchicum.

The other paper on the same subject is by Dr. Harris, who narrates eight cases of neuralgia treated by Mansford's galvanic

apparatus. The results we will give in his own words.

"Of the eight cases which have been treated with the galvanic agent, five have been entirely relieved. In every case in which the disease was located in the cerebral nerves, this simple and apparently feeble galvanic apparatus has accomplished cures. On the contrary, where this disease was diffused throughout the body, or located in the spinal nerves, it has failed."*

• This Number of the American Journal contains a case of paraplegia, and a case of general paralysis, occurring in the Baltimore Almshouse Infirmary, and successfully treated by Dr. J. H. Miller, with the same remedy.—Ed. Med. Quart. Rev.

CASE OF ATRESIA OF THE VAGINA, PRODUCED BY IMPROPER TREATMENT.

By Thomas Jefferson White, M.D.

A case of this kind occurred to me last summer, during the prevalence of epidemic cholera, from the malpractice of an igno-

rant empiric of the Thomsonian fraternity.

The subject of it was a negro girl, robust and healthy, æt. thirty, who had been attacked with spasmodic cholera, but had recovered entirely, the system merely laboring under the slight febrile excitement which usually succeeds those cases. I was sent for repeatedly, to obviate that excitement, but an extensive practice prevented me from visiting the patient. I however requested one of my students to call, and administer a refrigerant; in the mean time Mr. B. of steam memory, had prevailed on the owner to permit him to take her through a course of No. 6, &c., telling him that the spasms would recur, unless that plan was adopted. The owner, alarmed at the character of the epidemic, and the number of cases in his family, readily consented. Eleven emetics of lobelia were administered successively, and twelve injections of the infusion of red pepper, some or all of which were thrown up the vagina instead of the rectum. The consequence can be readily imagined. There were great prostration from the lobelia, and an active and extensive inflammation of the mucous coat of the vagina, with an entire sphacelus of that membrane, from the distressing effects of the red pepper, together with a total adhesion of its parietes, with the exception of a very small space at the posterior

portion of it, which could be barely reached by the point of the hidden finger.

To remedy this, a perpendicular incision, an inch and a half in width, was made, making the hidden finger of my left hand a director, and cut through the occluded portion of the vagina gradually and cautiously; taking care to avoid the bladder on the one hand, and the rectum on the other, until the knife reached the space between the occluded portion of the vagina and mouth of the uterus, the incision being thus upwards of five inches in length. A large quantity of the catamenial fluid was discharged, to the great relief of the patient, who had suffered for several days the most excruciating pain I had ever witnessed.

A thick bougie was then introduced, previously smeared with ceratum simplex, and this was retained until the parts healed completely, except when occasionally removed for purposes of cleanliness. No inconvenience has resulted from the operation, and she has even menstruated freely, and is in perfect health.

I conceive it due to myself, my profession, my country, and humanity, to publish the history of the above case, imperfect as it is. It ought to stigmatize with infamy the ignorant pretender, who has thus abused the principles of the most godlike and useful of sciences.—Baltimore Med. and Surg. Journal.

USE OF PURGATIVES.

There is a curious paper on this subject in the Archives Générales for September. The author, Dr. Simon, after having theoretically considered the effect of purgatives in a previous Number, gives in this one an account of their therapeutic effects, when administered to a number of M. Andral's patients at the Pitié.

Case 1. A carter, aged sixty-one, was suffering from bronchitis; his pulse was 116, and his respirations twenty-six in a minute. He was bled, took the gum-drink, with infusion of violets, and was put on low diet. These remedies produced no effect, and the patient remained in the same state for five or six days, when a violent fit of dyspnæa supervened. The day after this attack, the pulse was 108, the respirations twenty-four, and there was a decided mucous râle, both anteriorly and posteriorly. A jug of barley-water was now prescribed, with an ounce of sulphate of soda, and half a grain of tartar emetic. He was also allowed soup and broth. The aperient produced ten stools, and the pulse immediately fell to eighty-four, and the respirations to sixteen; the râles too were confined to the posterior part of the chest. The patient now quitted the hospital.

Case II. A turner, aged fifty-three, was admitted, suffering from hypertrophy and dilatation of the heart, with chronic bronchitis, slight ascites, considerable anasarca of the legs, and slight ædema of the arms. The pulse was very rapid, and so irregular as scarcely to admit of being counted. Respirations, twenty-eight. The treatment began by bleeding; there was no buff on the blood.

The pulse remained as before, and so did the ædema. Twelve grains of calomel were now prescribed, which produced four very liquid stools; the pulse, which could now be counted, fell to eighty-four, and the respirations to twenty-two. After the interval of a day, a jug of barley-water was prescribed, with an ounce of sulphate of soda, and half a grain of tartar emetic; this produced seven copious evacuations. The pulse remained at eighty-four, the respirations fell to twenty, and the anasarca was much diminished. On the following day, the pulse was seventy-six, the breathing much easier, and the cough much less.

The third case was one of pulmonary emphysema and chronic bronchitis, and the purgative consisted of two drops of croton oil,

which produced great relief.

The fourth case was one of chronic bronchitis, with pulmonary emphysema, and slight hypertrophy of the heart. Two drops of croton oil were administered, which produced eighteen stools. The relief was great and immediate; the pulse falling from one hundred to sixty-eight, and the respirations from thirty-six to twenty.

The fifth and sixth were cases of pleurodyne, treated with leeches and purgatives: in the first of the two, the purgative was of no benefit; but the plain fact is, that the pulse was only sixty-eight, and a blister was obviously indicated from the commencement.

The seventh case is termed by our author chronic laryngitis. The pulse was eighty, and the respirations twenty. Bleeding and leeches were tried in vain, and friction with croton oil was of temporary advantage only. The patient was cured partly by a spontaneous diarrhæa, and partly by two doses of croton oil.

This paper is interesting, both as showing how necessary a French physician thinks it to apologise for a method of treatment familiar to every British practitioner; and also as demonstrating the utility of that method in the clearest manner; for the purgatives and the venesection being used on separate days, their respective merits cannot be confounded.

CASES OF DIABETES AND CALCULUS RENALIS.

Dr. Lefevre, physician to the British embassy at St. Petersburg, has published, in the Medical Gazette, the particulars of a case of diabetes mellitus, successfully treated by him two years since. The patient was a woman, about fifty years of age, several of whose family had died of dropsy. She passed about fifteen pints of urine daily, was tormented by continual thirst, and the skin was dry and rough. The treatment consisted of two bleedings, animal diet, Dover's powder, and the warm bath. The bowels were kept open by calomel and colocynth, and she took equal parts of milk and limewater for common drink. These remedies mitigated the diabetes, but were unable to restore the perspiration. The cure was perfected by two vapour-baths, which caused the most profuse sweating, and the patient has suffered no relapse. Dr. Lefevre was at that time unacquainted with the vapour-bath, except as a medical

agent, but a residence of several years in St. Petersburg has familiarised him with it, as a means of cleanliness used by all classes

of people.

"The vapour-bath is a sine qua non of a Russian boor's existence. The soldiers and sailors use it twice, and the peasants at least once, a week. Baths abound in the capital; and in every village where there are twenty houses there is one devoted to the purposes of a bath. People of all ages use them, and the heat, generated in various ways, soon throws the person into a profuse perspiration. Sometimes dry heat is employed, and the individual stands in the bath as in an oven. Vapour is produced by dashing cold water upon hot stones. The bather generally lies upon a plank in the hottest part of the bath, and is flagellated with soft rods, or he is scraped down with a kind of hoop, or rubbed with shavings or hair brushes.

"Whichever of these processes he may undergo, and he has his choice, as also of his grooms, the effect produced is a profuse perspiration from every pore. When this has continued a certain time, warm water is dashed all over him, and then water a little cooler, and finally, water at a very low temperature. This is succeeded by dry rubbing, which produces a genial glow; and as the operation is generally performed of an evening, he retires from the bath to the bed or couch, and perspires moderately for the remainder of the day."

It seemed probable to Dr. Lefevre that the frequent use of these baths, by forcing the skin to perform its own office, would prevent the necessity of its being vicariously executed by the kidneys; and, on inquiry, he found that diabetes was a disease hardly known in Russia. Sir James Wylie, who has inspected upwards of two millions of soldiers, had never seen a case; nor had Dr. Freennius, a physician of great eminence. No instance of this disease is recorded in the books of the civil or military hospitals for the last

twenty years.

Dr. Lefevre concludes by observing, that people bathe less in England than any where else; an assertion which is unfortunately but too true. Far from the poor being able to afford a bath, even persons of the middle class often allege the expense in defence of their unwashed state. So that the affair stands thus: myriads are unwashed because the price of cleanliness is too high, and the price is not lowered, because the dealers in cleanliness do not believe in the existence of a large class having a real taste for bathing. The remedy for this state of things would consist in some benevolent and opulent person starting a few bathing-houses, careless whether he lost or not by them. The price of a bath might be a shilling, or less; and we think that the founder of these establishments would be a gainer.

The second case is one of a renal calculus. The patient first consulted Dr. Lefevre in August, 1833, complaining of nothing but the colour of his urine, which was of the deep tint of porter;

but this symptom was followed by a succession of nephritic attacks during the space of eight or nine months. The pains in the region of the kidney now vanished, and the sole uneasiness was in the bladder. The patient refused to be sounded, and set out upon a journey; he suffered a good deal from the jolting of the carriage, and a suppression of urine took place, while it could be felt externally that there was a foreign body in the urethra. We will conclude the case in the words of the author:

"The medical man who came to his assistance extracted a rough-shaped calculus, which was broken in the operation, and a considerable portion of it was lost. The extraction of it created great local pain, but this was not succeeded by any constitutional irritation, and the patient soon felt relieved from all his complaints. The portion of the calculus which he gave me for analysis weighed six grains. It was analysed by a good chemist, and was found to be oxalate of lime pure.

"It was ten months from the first uneasy symptoms which the patient experienced until the calculus passed into the bladder. True to the character of the mulberry calculus, there was never any deposit in the urine."

DIAGNOSIS OF OVARIAN DROPSY FROM ASCITES.

The diagnosis from ascites need not be mistaken. When the ovarian tumor is within a moderate size, its circumscription is conclusive. Its commencement on one side has been unnecessarily insisted upon since, as its attachment is generally long and free; it soon passes towards the mesial line, where most latitude is afforded for its expansion.

When the tumor fills the whole abdomen, the diagnosis is more difficult: here, however, percussion affords excellent, and, with ordinary care, conclusive signs. In ascites, the intestines float upon the fluid, and the resonance on percussion is hollow in the most elevated situations; and invariably so in the umbilical and epigastric regions. (Piorry's ivory Plessimeter is here preferable to the hand.) On the contrary, the ovarian tumor being developed in front of the intestines, which it forces back, the most prominent part of the tumor is always dull on percussion. Further, to a practised ear, the dulness on percussion of an encysted dropsy is much greater than that of ascites; since, in ascites, the layer of fluid before the intestines is never so thick as to prevent a certain degree of resonance from being elicited by firm and smart percussion. Again, fluctuation is more distinct in ascites than in ovarian dropsy, unless much tympanitic tension coexist with the ascites, a very common case: but here, fortunately, the high degree of resonance affords an unequivocal diagnostic sign. In ovarian dropsy, the neck of the uterus is usually drawn up out of reach. The general symptoms also are different, ascites being almost always connected with some old organic disease of the liver, heart, or kidneys, and attended with infiltration in other parts; while

ovarian dropsy may exist independent of them, and may even be compatible with a perfect state of the general health.—Hope's Morbid Anatomy.

TRACHEOTOMY.

Dr. Trousseau has performed the operation of tracheotomy thirty times, and gives the results in the following table.

Year.	Patient's Age.	Result.
1826	7	Died in fourteen hours.
1828	26	Died in sixteen hours.
1831	5	Cured.
1832	11	Died in eleven hours.
_	21	Died in three hours.
_	5	Died in seven hours.
_	21/2	Died in fifteen hours.
1833	3	Died in twenty-two hours.
_	41/2	Died in four days.
_	6	Died in sixteen hours.
1834	3	Cured.
_	16 months.	Died before the operation.
_	3½ years.	Died in twenty-six hours.
=	4	Cured.
_	5	Died before the operation.
	3	· Cured.
_	21	Died in three hours.
111111111	13 months	Cured.
_	4 years	Died in thirty hours.
_	5	Died before the operation.
	51/2	Died in six hours.
_	$4\frac{1}{2}$	Cured.
	3	Died in thirty-six hours.
	$5\frac{1}{2}$	Cured.
_	1	Died in twenty-six hours.
_	$2\frac{1}{2}$	Died in five days.
_	3	Died in three days.
-	3	Cured.
_	5	Died in thirty-six hours.

This gives a total of thirty cases, among which are eight cures, and twenty-two deaths. M. Trousseau thinks we ought to subtract from the total number, not only the three cases where the patients were really dead before the operation, but three others, where the patients were going on well, but lost their lives from the awkwardness of the nurses, who were unable to replace the canula, which had been expelled by violent coughing. The number of cures is therefore eight out of twenty-four cases; by no means an unfavourable result, as it shows the possibility of saving one out of three patients where, without the operation, not one would survive.—

Journal des Connaissances Médico-Chirurgicales.

ISCHURIA RENALIS.

A remarkable case of this disease is narrated by Dr. de Leon, in the Baltimore Medical Journal. The patient was a lady, about fifty years of age, and recovered at the beginning of the fifth week apparently by the vis medicatrix natura, after a variety of treatment had been tried without benefit. Dr. de Leon says "it may be expected of me to detail the practice pursued in the case. To sum it up in a few words, I would remark, that every remedy suggested by writers on the disease had a full trial before they were laid aside. I am not therefore prepared to admit the value of one over another. Cupping over the spine, repeatedly instituted, and followed up by the most powerful rubefacients, by friction, claimed my greatest regard."

This is the second case of this disease which the author has seen. In the other instance, the patient, a gentleman aged about thirty-eight, died at the end of the third week. The bladder was much contracted, and the right kidney was considerably enlarged, and

bore marks of recent inflammation.

BELLINGERI ON NEURALGIA.

In the Annali Universali for April there is a memoir by C. F. Bellingeri, containing the results of his experience on this subject, during fourteen years' practice at Turin. In the course of this period he has treated 5,612 patients, of whom forty were affected with neuralgia of the different branches of the fifth or seventh pairs.

Symptomatology. Bellingeri has little to add to the description given by authors. Once he saw, in a case of suborbital cephalalgia of the left side, the hair become more stiff, thick, and grew more rapidly at the anterior part of the affected side than on the other. It was cured by section and cauterization of the nerve, and the hair took on its natural condition. In another case the hair fell off.

Form and Progress. In general, neuralgia has an intermittent but irregular progress. Sometimes the attacks are periodical; frequently neuralgia treated properly has been brought to a double tertian or quotidian type, and is easily cured with quinine. Periodical attacks, whether double tertian or quotidian, always come on before mid-day. The attacks are never periodical at first.

Seat. The most common seat of neuralgia is the 5th pair. Twice only it was observed in the seventh pair; in one of these instances the disease depended on a traumatic cause, and in the other it was owing to the enlargement of scrofulous glands in the vicinity of the nerves of the branches of the fifth pair: the most frequently morbid are the suborbital and frontal, the former almost invariably on the right side, the second commonly on the left. Frontal neuralgia, or that of the different branches of the ophthalmic nerve, most frequently puts on a periodic form, which is never the case with the suborbital.

Influence of Age. All the affected had passed forty years, with the exception of two brothers, one twenty-five and the other thirty years, whose mother had been subject for years to obstinate head-

achs, which were often repeated in the course of the year.

Sex and Temperament. Sex does not appear to influence development of neuralgia; but unmarried persons are more subject to it. The same obtains in those of sanguine, or sanguine-nervous temperaments, of athletic form, or of rigid, hard, and sensitive fibre.

Periods of the Year. Neuralgia almost always commences for the first time in spring or autumn, but especially in spring. It must be remarked that in Piedmont the spring is more liable to sudden atmospheric vicissitudes than the autumn. Neuralgiæ of

any standing are also more intense at these seasons.

Duration. Old intractable neuralgia ceases spontaneously, or is considerably diminished after a period of ten or twelve years. In one case only a suborbital neuralgia of the left side carried the patient to his grave, after eight years of suffering; it was a sexagenarian priest, of sanguino-nervous temperament, and rigid, hard fibre. The disease was in the first instance cured; but he having gone into another country, the neuralgia reappeared, and resisted

every remedy.

Relapses. In two subjects that were cured of this disease, the affection reappeared in one of them after two years; in the other, after ten years. They were a second time cured. In both the relapses was to the nerve primarily affected, but of the opposite side. Bellingeri has cured thirty-six acute neuralgiæ, which he has treated from their commencement. In the majority of these the disease only relapsed after several years; in others, the cure appeared consolidated. The other cases were of chronic neuralgia; once only he obtained a radical cure by the section of the suborbital nerve; the three other times he could only give partial relief.

Causes. Twice the disease arose from a traumatic cause; in one, from a fall on the head, and was cured; in the other, from a piece of iron falling against the left suborbital nerve. Twice again it was caused by fright; in the first case the fits became less painful and frequent with time, and the patient died of apoplexy at the end of ten years; in the second case it occupied the right frontal branch, was terribly intense, and lasted eight years, when it yielded; but it reappeared in the left frontal with less intensity, lasted again two years, and disappeared spontaneously, leaving behind it violent frontal headach, which brought on mania. Neuralgiæ caused by terror appear to be exceedingly obstinate. Bellingeri has only once seen neuralgia commence at the period of cessation of the menses, and once in a man on suppression of hæmorrhoids; antiphlogistics and sedatives cured these cases. A rheumatic cause is one of the most frequent of neuralgia. It consists in the prolonged action of humid cold on the body, or sudden changes of temperature, or cold playing on the face. Of this he gives several instances, chiefly left suborbital neuralgia; it is very obstinate when originating in cold.

Species of Neuralgia. Bellingeri divides neuralgia of the face into inflammatory and irritative, or nervous. The inflammatory he subdivides into the sanguineous, phlogistic, and rheumatic. The sanguineous depends on a simple congestion of the encephalon or nervous trunks, and is owing to suppressed menses, hæmorrhoides, or other evacuations &c.: there is general plethora. The phlogistic is an actual phlogosis of the nervous trunk, or of its origin, consequent on a prolonged congestion, or on a traumatic cause; suppression of transpiration, repercussion of exanthemata, &c. induce it: a serous effusion may accompany it, and thicken the neurilema. It should be remembered, that most frequently neuralgiæ have at their commencement more or less of a phlogistic character, or of simple sanguineous congestion, and that then antiphlogistic means of varied power should always be employed. Traumatic neuralgia are in this case; but, on the other hand, the wounding cause often produces lesion of the same, requiring particular means. Bellingeri has seen neuralgia from wounds cured by antiphlogistic and sedative remedies when treated early, where, as in old cases of the same kind, these remedies only palliated. Rheumatic neuralgia is caused by cold and humidity: early, it requires antiphlogistics and sedatives; at a later period revulsives and diaphoretics are necessary: it is the most frequent kind, and also the most curable, in Bellingeri's hands.

Irritative neuralgia depends on a foreign body irritating the nerve, as caries, worms, tumors of the frontal or maxillary sinus, retrocession of exanthemata, or syphilis: in treatment the cause

must be removed.

Purely nervous neuralgia is irregularly intermittent or periodically intermittent. Idiopathic neuralgia, essentially nervous from its commencement, is very rare: of this kind are those produced by mental causes: also, those that are sympathetic in their commencement, for subsequently the repeated attacks beget an actual phlogosis in the nervous trunk; to this kind, also, may be referred the inflammatory or irritative neuralgia, that persist after all inflammation has been subdued and all cause of irritation has been removed. When periodical intermittent neuralgia is purely neryous, it only requires quinine; but, depending on an inflammatory or rheumatic cause, it calls for antiphlogistics in the first instance. Almost invariably, when quinine is required, it is well to premise antiphlogistics, otherwise the disease is likely to be aggravated; for it is rarely the case that a neuralgia, even essentially nervous, is not accompanied at its commencement with inflammatory congestion.

Treatment. Regularly periodical neuralgia yields with certainty to quinine: reference, however, must be had to what has been said above on the possibility of an inflammatory state being allied with the pain; rheumatic neuralgia, properly treated, is converted into regular periodic, and treated accordingly. When neuralgia is phlogistic, it is sometimes necessary for some time to persist in

bloodletting. In neuritis, besides bleeding, purgatives, and sedatives, as laurel-water and hyoscyamus, are to be used; twenty-eight cases of neuralgia were successfully treated in this manner by Bellingeri; he gives twenty or thirty grains in the day. of morphia is of little use taken internally; it is more effectually used in friction, with oil, on the pained part; or better still, on the denuded dermoid tissue. Three intense rheumatic neuralgiæ were in this manner cured, antiphlogistics being previously used. Bellingeri raises a blister, and sprinkles half a grain of the acetate on the surface every twenty-four hours: he saw two grains cause fainting, nausea, &c. When neuralgia is rheumatic after antiphlogistics, we should raise a blister on the arm of the corresponding side, and keep it open for a long time; some diaphoretic (kermes, with extract of aconitum,) hastens the cure. Traumatic neuralgiæ are to be treated antiphlogistically; if the nerve has been pricked or lacerated, or contused, and the pain resists all antiphlogistics, section and cauterization of the nerve, a little below the point of lesion, should be practised. Irritative neuralgia, which has for cause some product of inflammation, as serous infiltration, thickening of the neurilema, tumefaction of the nerve, &c. should be treated by friction with mercury or iodine, general or local. owing to repelled eruptions, they should be recalled; when to syphilis, recourse must be had to mercury. Sedatives are more peculiarly fit in the essentially nervous neuralgia; if the patient is feeble or lymphatic, preparations of steel or quinine may be added, or should rather be premised. When owing to a mental affection, oxide of zinc, valerian, ammoniuret of copper, prussiate of iron, &c., may be used; but Bellingeri has never seen these means successful in old cases. Section and cauterization should be practised between the brain and the disorganized part of the nerve; two sections should be made, and the intervening portion removed, lest cicatrization should renew the connexion with the brain; this is better than the horribly painful cauterization of the extremities of the nerves. For the same reason Bellingeri rejects simple cauterization of the nerve, as proposed by Paletta, and consisting in the division of the nerve with a red-hot knife.—Dr. Ryan's Journal.

TUMOURS OF THE NECK.

Two cases are narrated by Dr. N. R. Smith, in the Fourth Number of the *Baltimore Journal* in which he extirpated tumours of the neck. In one the termination was favourable.

"In the winter of 1830, I visited Mrs. Gilliland, aged about twenty-five years, the wife of a farmer living near Gettysburg, Pa., for the purpose of examining a large tumor situated in her throat. I found it to be located on the right of the thyroid cartilage, under the border of the sterno-cleido-mastoid, and having the omohyoid muscle strained directly across its centre. It was of course completely beneath the deep fascia, and was in immediate contact with the sheath of the great vessels. Its form was ovoidal, its size

that of a large goose's egg, and it occupied nearly the whole space from the angle of the jaw to the clavicle, creating great deformity. Its long diameter corresponded to the length of the mastoid muscle. It was very firmly bound down by the mastoid muscle and fascia, and was moved with great difficulty beneath them. I first satisfied myself that it was no portion of the thyroid gland. I also convinced myself that it did not involve in disease the great vessels and nerves of the neck. That by its mechanical pressure it irritated these organs was sufficiently manifest, for there existed a train of symptoms evidently resulting from mechanical pressure on the pneumogastric nerve. The stomach was much impaired in its functions, her appetite being capricious, and food often occasioning much distress in the organ soon after being taken. She was also sometimes affected with nausea, diarrhoa, alternating with costive-There was also not a little embarrassment of respiration. She suffered severely with occasional pains in the head, on the side corresponding to the disease. The pulse also gave evidence of considerable constitutional irritation.

The patient recovered completely. In the other instance, Dr. Smith extirpated a similar tumour from the neck of a farmer, aged forty-two, who recovered, and remained in good health for about a year. The tumour then returned in the same spot, but it was now hard, knotted, closely adherent to the surrounding spots, and excessively painful. Dr. Smith determined to attempt to remove the tumour.

"Accordingly, in the presence of my friends, Drs. Shorb and Miller, and several of my pupils, I divided the integuments on the inner side of the cicatrix, and proceeded to explore its connexions. After cautiously dissecting it from the muscles, and separating its external connexions, I introduced the finger into the wound, and made gentle efforts to detach and separate the tumor from the vessels. While I was in the act of doing this I felt something give way to a gentle effort of the finger, as if some soft substance were ruptured by it, and instantly the wound, the table, and the floor was deluged with dark blood.

I immediately discovered that the internal jugular vein had become involved in the disease, and that its coats, having become soft and brittle, had been largely rent by even the slight traction which had been made upon them. The vessel appeared also to have become enlarged, and as by the struggles of the patient, the irregularity of breathing, and the action of the heart, the blood was pressed with great force from the cava into the jugular, the hemorrhage was truly appalling. Hemorrhage from the carotid, I am confident, could not have been so rapid. It bubbled so copiously from the wound, that in an instant, and before I could press my thumb into the bottom of the cavity, the floor was covered with blood, and the patient fell back inanimate, and as if dying. Respiration and circulation being thus suspended, I was perfectly aware that instant action, before any reaction should occur, was

necessary, to save our patient from death on the operating-table. I opened the wound more freely with the knife. I removed the friable portions of the tumor, I exposed the vein, and found it torn open down close to its junction with the subclavian. I then seized an armed needle, which was at hand, and at the moment that the patient was reviving, and that blood began again to gush, I passed a strong ligature beneath the vessel, and secured it close behind the This was done with some apprehension, lest I should clavicle. include the pneumo-gastric nerve. After encircling the vessel, however, I satisfied myself that the nerve was not included, and immediately drew the knot. There was still a good deal of venous hemorrhage from the upper orifice of the wound, and an oozing of arterial blood from the remainder of the diseased medullary mass. It was manifest that the coats of the artery also were involved and converted into the peculiar structure of the disease, and that any further effort upon the latter would at once produce an arterial hemorrhage. I therefore at once closed the wound, and applied to it as the most efficient compress which could be used in that region, a soft sponge. The bleeding immediately ceased, and slight pulse returned in the extremities. The patient was carried to his bed; and, although he suffered greatly, and was much reduced, immediate dissolution was no longer threatened.

"I was obliged to leave my patient, to return to Baltimore, soon after the operation, but the conclusion of the case was related to me by Dr. Shorb, of Littlestown. He survived the operation about ten days, and then sunk, apparently from exhaustion. It is manifest therefore that he could not have perished from phlebitis, which by some is supposed almost necessary to arise from the application of ligatures to veins of such very large size, and in a diseased

condition.

"Another fact is worthy of particular notice. At the moment that blood was gushing most copiously from the wound, when the patient was fainting, and the inspirations were unfrequent, deep and strong, I distinctly heard a bubbling of air as it was sucked into the vein. I apprehended at the moment that immediate death would be the consequence, but I am not aware that any particular morbid phenomenon resulted from it."

A CASE OF CONGENITAL DEFICIENCY OF BOTH THE UPPER AND LOWER EXTREMITIES,

By J. F. E. HARDY, M.D., of Ashville, North Carolina.

The subject of this deformity is a young woman, aged about twenty years. She was born without either upper or lower extremities, the situation of which is merely occupied by small rounded projections. The stumps of the shoulders are remarkably small and short; those of the thigh are much larger, but are not more than two inches in length. I think her mother has had twelve children, but she is much larger than either of her brothers or sisters. She is, indeed, of a full and plump habit, and possesses

a peculiarly lively disposition.

Her power of locomotion is remarkable. She can transport herself over the floor with considerable ease, which she does by submitting her body to a kind of rotatory motion alternately from right to left, and the contrary. By confining the handle of a broom between her chin and shoulder, she can sweep the floor with considerable dexterity. She can also sit erect, lean back or rock herself in a chair, as well as another person; and, when any thing is given her, she makes a sign for it to be placed upon her shoulder. If it be any solid article of food, she eats it from that situation.

Her hips and nates are remarkably full and large, and are almost square. Her breasts are also voluminous, and remarkably plump, presenting all the characters of the mammæ of a stout young female of her age. Her catamenial discharge is regular, and of the na-

tural quantity.—Baltimore Med. Journal.

A CASE OF POISONING BY FISH.

My attendance upon Mrs. H. a confidential servant, æt. 40, commenced Jan. 26, 1835. She was then labouring under slight pneumonia, slight indeed as far as regarded the prominence of the symptoms, but perhaps violent with reference to the scanty powers of resistance of an extremely feeble constitution. One very small bleeding, the application of leeches several times repeated, and two blisters, were among the chief remedies employed. She also took blue pill and squill, to the amount of 64 grains of the former, and 16 of the latter. But it is unnecessary to dilate upon the treatment of the case; let it suffice to state that every thing went on well till the 28th of February, with the exception of the pulse, which was rarely under 108, and more frequently 120. On the evening of the day just mentioned, I was suddenly called to my patient, and found her sitting up in bed, speechless, but with her eyes open, and apparently sensible; or rather with the vague consciousness of a person suffering under a "phantasma, or a hideous dream." She occasionally pointed to her ears and mouth, by which she seemed to signify that she could hear but not speak. The case, I will confess, was a perplexing one. Although I was aware that Mrs. H. had formerly had a paralytic stroke, I was not likely to fall into the error of supposing that another attack was at hand, or of employing the lancet to cut the knot which I could not untie; for the pulse kept up its usual rapidity, the pupil contracted when a candle was brought near the eye, and there was nothing like stertor or coma.

The bystanders assured me that Mrs. H, had taken nothing which could have disagreed with her. I began with giving her small quantities of Epsom salts, and meantime renewed my inquiries as to her dinner. The fish, her friends repeated, was quite sweet; on examining the remainder (part of a sole), I found it quite fetid. The mystery of the case seemed to be cleared up.

Twenty grains of sulphate of zinc were immediately procured and administered; but as eight or nine hours had elapsed since dinner, nothing but mucus and water was vomited. In about an hour, Mrs. H. recovered her consciousness, recognised me with surprise, asked if she had been ill, &c. &c. but soon relapsed. The recovery and relapse were repeated; she again recovered, and in rather more than two hours after my arrival, I left her tolerably composed, but confused and distressed by the consciousness of the dreamy state from which it had been so difficult to rouse her. She complained of her head having been oppressed, of having seen many lights, and so on. The numerous doses of sulphate of magnesia given during the evening were not without effect, in spite of the vomiting, for a stool was passed in the night, and was reported to be extremely offensive. Some days elapsed before the dimness of her sensations cleared up; and meantime a new source of irritation, a large abscess near the rectum, made its appearance, and in its turn caused delirium; so that, from the two attacks thus melting into one another, it was not easy to say how long it was before she recovered from the first. I ought not to omit to state that before, as well as after, the attack of Feb. 28, she took half a grain of the acetate of morphia nightly; but so far was this from producing any unpleasant effect, that the patient herself remarked so me, on the morning preceding the attack, that she had supposed that all sleeping-draughts affected the head, but that this did not. Her recovery has been perfect. My opinion, which I give with considerable diffidence, is that these remarkable symptoms were caused by the fish-poison, after it had reached the small intestines, and could no longer be recalled by an emetic.

March 27, 1835.

E. A. Domeier.

SYRUP OF RHUBARB STALKS.

M. Chevallier has given an account of his method of preparing a syrup from the Rheum Australe, in the Bulletin Général de Thérapeutique. A leaf was taken, weighing 416 grammes, and stripped of the green part, so as to leave the stalk and its ramifications, amounting to 320 grammes. This was bruised in a wooden mortar, and then pressed: the juice thus obtained was first passed through linen, to separate the coarsest particles, and after being suffered to settle for some days, was then filtered. The filtered juice weighed 266 grammes, and was made into a syrup in the following manner. The 266 grammes of filtered juice were put into a matrass, and 525 grammes of powdered white sugar being added, the matrass was heated in a water-bath, and the heat was kept up until the sugar was perfectly melted and converted into syrup, at the top of which was a white pellicle. The syrup was then passed through a sieve; it was transparent, but when cold, it was found that a white powdery precipitate had taken place. This was removed, and proved to be oxalate of lime, proceeding either from the juice, or the sugar, or both. The remaining syrup was

clear, and of a fine amber colour. Its taste was slightly acid, and very pleasant, resembling that of the syrup made with rennet

apples.

This syrup owes its agreeable acidity to the superoxalate of potash. M. Chevallier has since prepared it with the stalks of other varieties of rhubarb, the rheum compactum, undulatum, and almatum.

EFFECTS OF INDIGO IN SPASMODIC DISEASES.

Dr. Moritz Strahl gives the result of some experiments on this subject, in Grafe and Walther's Journal, (Vol. xxi. Part I.) He first employed indigo in cases of confirmed epilepsy, beginning with a scruple three times a-day, and increasing the dose until half an ounce was taken daily. During the use of the remedy, the stools became blue, and the urine dark green. Ten epileptic patients, of whom four were under 15 years of age, and the rest from 20 to 30, took the indigo without intermission for eight weeks. In two cases only there was a temporary absence of the disease. but even in these it returned with as much violence as ever. The indigo seemed to have no effect on the system, with the exception of its dyeing the stools and urine, and causing a slight uneasiness of the stomach, which was probably merely a mechanical effect, depending on its bulk, as it occurred only from the largest doses, and generally disappeared in a few hours. These patients were all The author likewise administered indigo to four hysterical patients, one of whom was in extreme old age, and the others were girls aged 17, 21, and 24. The effects were singular enough. When the dose had been raised to two drachms a-day, all four were seized with violent nephritic pains, the urine was more intensely coloured than in men, and a tolerable quantity of fine indigo dust was to be seen at the bottom of the vessel. These violent renal symptoms lasted four days; and yielded at last to the continued use of an oily emulsion. In one case only was there a remission of the spasmodic symptoms after the disappearance of the nephritic attack, and that patient is now quite well, three months after the discontinuance of medicine. The power of the indigo over the uterus was sufficiently striking; for in two cases an amenorrhœa, with which the spasmodic symptoms were complicated, was entirely cured, though the spasms themselves did not cease when menstruation had returned. In two cases of St. Vitus's Dance, one in a boy of 12, and the other in a girl of 9, the indigo was administered for six weeks, but without benefit. Dr. Moritz Strahl concludes that indigo is inefficacious in spasmodic diseases, but possesses considerable power over the genital and uropoetic system.

BELLADONNA IN HOOPING-COUGH.

This remedy has been used with success by M. Guersent in two cases. The first patient was a girl aged five and a half, who had been labouring under hooping-cough for a fortnight. The dose

was a grain of the alcoholic extract of belladonna daily, to begin with, and was gradually augmented to three grains. It did not produce any unpleasant symptom except dilatation of the pupils. Amendment rapidly took place, and in six days the cough became purely catarrhal, but the remedy was continued three days longer,

to prevent all danger of a relapse.

The second patient was a girl aged seven. She had had a cough three months, and had hooped three weeks. In this case the belladonna cured the hooping in a few days; but being now omitted the hooping returned. The belladonna was resumed, and again cured the hooping, but caused enormous dilatation of the pupils, confused vision, and head-ache. The dose was diminished, and the disease did not return.—Gazette des Hôpitaux.

ON THE USE OF CAMPHOR IN TYMPANITIS.

Dr. Tradini has narrated four cases of tympanitis in the Gazette Médicale. The first one, he says, he treated according to the doctrines of Sauvages, Morgagni, and Cullen. The patient was a woman about 60, of corpulent habit, who had always lived comfortably and enjoyed good health. The author applied a large blister to the abdomen, and ordered the following mixture.—R Aq. Menth. Pip.; Aq. Melissæ aa. Jii.; Æther. Sulph. Ji.; Syrupi Ji. M. sumat coch. ii. ampla ter in die. A temporary alleviation ensued, but nothing was of any permanent benefit, and the patient died in three months.

Case 11.—The patient, a man æt. 45, was first treated by the application of iced water and ice to the abdomen; but as this was of no benefit, Dr. Tradini prescribed the following remedies:—R. Camph. pulv. gr. vi.; Extr. Cinch. officin. gummosi, gr. viii. M. ft. pilula; dentur tales æquales n°. viginti, sumat unam quarta q. horâ.—Frictions with hot flannel, and the use of flannel drawers and waistcoats were likewise ordered. Eighteen of the boluses completed the cure.

Case III.—The patient was the famous improvisatore Philip Pistrucci, whom our author treated in London. He had previously been under the care of another physician, who had prescribed aperients, which had opened the bowels, but not relieved the abdominal distention. The same remedies were employed, except that each dose contained seven grains of camphor, and in a few days

Pistrucci was cured.

Case IV.—The patient was a boy, æt. 9, who had been ill for a month, and kept his bed for a week. He was suffering from marasmus as well as tympanitis, and there was fluctuation in the abdomen. The prescriptions were—R. Camph. pulv. gr. ii.; Scillæ pulv. gr. ss.; Extr. Cinch. officin. gummosi, gr. ix. M. fiat pilula; dentur tales n°. 6, sumat i. omni tertià horà ante nutrimentum.—R. Decocti graminis, 3x; sit pro potu.—The diet was to consist of broth and wine. These measures produced immediate relief, and in a month the child was quite well, with the exception of some glandular swellings in the neck.

ON STAMMERING AND ITS CURE.

There is a paper on this subject, by Dr. Moritz Strahl, in Gräfe and Walther's Journal. The method of which he gives an account was brought to Europe from America, by a Mrs. Leigh. She entered into partnership with Dr. Malbouche at Brussels, from whom the secret was bought by the Belgian government. The system has likewise met with great applause in Prussia, and was designated by Dr. Zitterland, member of a commission appointed to inquire into its merits, one of the most important discoveries of our age. The Prussian medical board, too, sent persons acquainted with the method to the seminaries where schoolmasters are educated, in order to instruct these teachers how to cure any cases of stammering which might occur to them. Dr. Strahl learned the art from his sister, who had been under the care of a professed curer of stammering.

The whole art consists in the following rules: the stammerer is to press the tip of his tongue, as hard as he can, against the upper row of teeth, is to draw a deep breath every six minutes, and is to keep perfect silence for three days, during which, this pressing of the tongue and the deep inspirations are to be continued without intermission.

During the night small rolls of linen are placed under the tongue, in order to give it the required direction even during sleep. When the three days have expired, the patient is to read aloud slowly to his physician for an hour. During this exercise care is to be taken that the stammerer is never in want of breath, and he must therefore be made to stop frequently, and inspire deeply. The patient is to be admonished to keep the tip of the tongue floating when he speaks, and never to allow it to sink into the anterior cavity of the lower jaw.

It would hardly be believed that this most simple method of treatment could have such striking success as experience teaches us that it has, even in the worst cases. Whether it is that speech is made more easy by the mechanical direction of the tongue, which, after the three days of pressure, remains of itself in the floating direction, or whether it is from the moral influence exercised by the three days' silence and the mystery that hangs about the treatment; certain it is, that the result is immediate, and surprisingly favourable, but unfortunately it is not lasting.

Having thus given the method of cure, I will now, says Dr. Strahl, narrate the results of several cases.

Case I. Matilda F. the daughter of a person holding a respectable official situation at D., a slender blonde of 18, in perfectly good health, had suffered since her ninth year so severely from stammering, that she was obliged to confine all intercourse to the circle of her nearest relations, because conversation was so difficult to her, that after some violent preliminary stammering, she was no longer able to utter a syllable. She was well educated, quite

familiar with the German and French classic authors, and though lively, of a gentle disposition. When she spoke to acquaintances her words flowed on for some time, until at last some word came, which she could not pronounce without the greatest difficulty; and when such a stumbling-block had once occurred, her confusion increased, and she stammered much more frequently, even in words which just before had been pronounced with the greatest facility. Neither in this nor in any other patient whom I have treated, have I perceived that any initial letter caused especial difficulty; there was hardly a word in the language which was not at one moment pronounced with ease, and a few minutes afterwards unutterable. In the patient of whom we are now treating, the stammering was particularly striking when she read aloud. She could not utter three words running without a convulsion of stuttering strongly affecting her facial muscles, and painfully embarrassing to her auditors. When her father introduced her to me I handed her a book, in order that I might judge of the degree of the defect from her manner of reading. Three lines cost her eight minutes, and caused a spasm which excited the liveliest compassion of the by-It was remarkable that reading aloud produced stanmering even before her friends, though she could converse with The patient remained in my house, had a them tolerably well. room to herself, and observed the rules detailed above for three days with the greatest attention. On the fourth day I made her read aloud, and was astonished to find that she could read two whole pages without the smallest stumbling. It is true that she did it very slowly, but she had been told to do so on the former occasion without any effect. She talked with such ease, that strangers who were accidentally present could not detect any defect in her utterance. In order to make matters sure, I continued the reading exercises for three days, and then began a new period of silence with its annexed conditions. After the lapse of this second period of three days she read aloud with great firmness, and it very seldom happened, that either in speaking or reading any difficulty occurred, and if it did, it was easily overcome. I announced this fortunate result to her father, requesting him to take her home; on his arrival, I had a party at which Goethe's Tasso was read, and my patient took the part of the Princess, which she read with such ease, and in so feeling and correct a style, that she enchanted all who were present. This was universally recognised as a radical cure.

Six weeks afterwards I went to D. where I had the mortification to hear from her father that the defect had returned in the severest form; that she was no longer able to read aloud at the family prayers as she had done for the first few weeks after her return, and that she stammered when talking to strangers. My patient was now sent for, and although our conversation was long and lively, she did not stammer once; she read aloud, and succeeded perfectly in that also. This favourable result was obviously due

to the moral excitement caused by the presence of her physician. Her father concluded from this, that a longer residence in my house, and a repetition of the curative process, must be useful to her: but although she lived for six weeks more under my constant superintendence, and I subjected her to several kinds of exercises, I was no longer able to produce the favourable result which I had observed after the first three days; and I was obliged to dismiss my patient without being able to consider her as cured, though she was certainly much relieved. She had evidently gained in firmness of utterance, and even in reading aloud the spasms were but slight,

though remarkable.

Case 11. Theodore L., a young man aged twenty-five, townclerk of M., lively and of a sanguine temperament, but of small intellectual cultivation, stammered to such a degree that he was always laughed at by uneducated persons; his greatest annoyance, however, was the being obliged to read aloud the documents which it was his duty to draw up. He was three times subjected to the course described above; the amelioration was in his case also greatest after the first three days, but it did not progress by the repetitions of the treatment, and after four weeks' attempts the patient was dismissed, considerably relieved indeed, but by no means radically cured. He now reads out his papers with a very moderate effort, which in truth is so slight, that he holds himself for cured. Any passion, however, loses him the mastery of his speech, and a slight excitement of his feelings calls forth a strong stammering convulsion.

Case III. Von N., the son of a rich Memnonite at D., was introduced to me by a letter from his father. I was sitting one afternoon at coffee with my family, when a well-dressed young man entered the room, and attempted to address me; in doing this he distorted the muscles of his face in such an extraordinary manner, that though we were all accustomed to stutterers, it required a forcible effort to smother our laughter. I immediately saw that this must be my new patient, and by addressing him accordingly, put an end to our mutual embarrassment. It turned out that Von N., who was a man of the gentlest and most tranquil disposition, stammered beyond any thing that I had ever heard before. He remained four weeks in my house, and to the astonishment of all my friends, as well as myself, was perfectly cured. The result was so permanent that even now, four years after his cure, he remains in the full and undisturbed possession of his organs of speech.

Case IV. Augustus D., æt. 12, the son of a peasant, stammered so shockingly, that the greatest attention did not enable a stranger to understand him. He was quite uneducated, because he could not receive any instruction, and even his reading was very so so. I attempted his cure, which, contrary to all expectation, was effected to a certain extent. After he had been three weeks in my house, he could often converse with my children for a quarter of an hour without stumbling, and could speak even with

strangers with but little struggling, and in an unconstrained manner. It was obvious that an immense improvement had taken place. Six months afterwards I heard from his afflicted father that his stammering had returned with unweakened violence. Two years after he had been under my care I saw him again: he was a stout country lad, but the defect in his speech was as great as can

well be imagined.

Case v. Theodore F., æt. 14, the son of a clergyman, was a sprightly clever boy, who had stuttered from his infancy, and felt his defect the more painful, as he was conscious that it would be a great hindrance to him in the pursuit of the sciences which he wished to study. He submitted with readiness to the prescribed rules, but although he continued the exercises with patience, it was seven weeks before he was able to talk to strangers without embarrassment. At the expiration of a year I heard, from his father, that two months after the cure his son's stammering had returned,

though in a less degree.

Dr. Strahl observes, with great justice, that Mrs. Leigh's method having radically cured one case and alleviated the others, is well worthy the attention of the scientific physician. He thinks that the principal advantage of this plan consists in its arresting the stammerer's attention by directing him to keep his tongue in a given position, and thus freeing him from the fear of stammering. But he is also of opinion, that the mechanical direction given to the tongue may facilitate speaking; and this supposition is confirmed by its effect in Case iv., where the patient, from the uncultivated state of his intellectual faculties, was not likely to be affected by a mere moral impression.

MISCELLANEOUS.

VARIETIES OF RHUBARB.

According to M. Geiger, ioduretted hydriodic acid is a good re-agent to distinguish the different rhubarbs of commerce; it gives a green tint with the decoction of Russian rhubarb; a brownish one with the Chinese; a deep red with the English, and a blue with the French (Jour. de Chimie Méd., vi. 535.) The same author is of opinion, that iodine will show whether rhubarb will keep long or not, as this depends on the great or less quantity of fecula contained in it (ibid.) which renders it more or less susceptible of being punctured by the insect called Sinodendrum pusillum, Kirby. Thomson assures us, that a solution of isinglass caused a greater precipitate in the infusion of Chinese than of Turkey rhubarb, and that the decoction of yellow bark throws down an abundant greenish precipitate in Russian rhubarb: in the Chinese it is of a brilliant yellow.

[From the Dictionnaire Universel de Matière Médicale, par F. V. Mérat et A. J. de Lens; tome vi. p. 65. This useful work, of which we gave a notice in our first Number, is now completed, in six volumes.—Edit. Med. Quart. Rev.]

PRESERVATION OF WOOD BY CORROSIVE SUBLIMATE.

After immersing the wood in a solution of the corrosive sublimate, it still remains in a state to influence chemical tests or agents; so that at any time it will be easy to detect, by a simple experiment, whether timber has been prepared by Mr. Kyan's process. The effect may be observed by taking a piece of simple deal, that has not undergone the process, and applying a few drops of hydro-sulphuret of ammonia, when no effect will be produced; but when the same test is applied to a piece of wood which has been immersed in the solution, a dark stain will be instantly left upon it. Thus the presence of the protecting substance is proved by the contact of a little hydro-sulphuret of ammonia, occasioning no change in the simple wood, and producing a black mark instantaneously on its application to wood previously immersed in the solution of corrosive sublimate. This evidently shows that among the fibres in the very substance of the wood, some of the calomel remains behind. It was the case with some specimens of linen examined by Professor Faraday, which had been long immersed in the solution of corrosive sublimate. Upon simply washing in water, he found they yielded no evidence of any process having taken place, but when he applied nitric acid he obtained an action of the mercurial matter within the substance, and rendered it evident. - Dr. Birkbeck's Lecture on the Preservation of Timber, by Kyan's Patent.

[This is a remarkably interesting pamphlet.—ED. M. Q. Rev.]

CHEMICAL EFFECTS OF ELECTRICITY.

Under the head chemical effects, we may perhaps speak of the increased rapidity with which putrefaction proceeds in all animal or vegetable bodies which have been killed by electricity. It is also well known that a storm frequently gives a putrid smell to meat; and grain under fermentation, as in the process of brewing, suffers a very sudden change, and is often rendered useless. M. Achard, of Berlin, recently investigated this subject with a view to determine the influence of electricity, which is always present in the atmosphere in stormy weather, in producing these effects. By his experiments, he was led to the conclusion that whenever flesh is electrified, or animals killed by electricity, the progress of corruption is greatly accelerated, and that the putrefaction of flesh after a storm must be ascribed solely to the more abundant accumulation of the electric matter at that time.—Higgins' Alphabet of Electricity.

CLIMATE OF MADEIRA.

Dr. Renton's report of the effects of the climate of Madeira on the invalids who passed the last winter there has just reached us. The total number of pulmonary invalids who arrived there during the season of 1833-34 was sixty-six. Of this number fifteen died; forty-three returned to their homes; and eight still remain in the island. "Of the fifteen fatal cases," says Dr. Renton, "thirteen

ought not to have left their homes; of the forty-three who left the island for England, or other parts of the world, thirty-six were very much improved; indeed, I may say, a large majority of them went away well." The result was very different a few years since, when persons were only sent to Madeira in the advanced stage of the disease.—Dr. Clarke in Cyclop. of Pract. Med. part xxiii.

MEDICO-LEGAL DISINTERMENTS.

I shall give a few examples of what may be effected by researches of this kind. Not long ago, proofs of poisoning were discovered in the remains of a body that had lain in the earth for seven years. The case occurred at Lyons. A woman had long been suspected of having poisoned her father, but, for want of direct proof, justice could not reach her. At length a circumstance occurred which threw a strong light upon her guilt; and, though seven years had elapsed, it was thought requisite and proper to disinter the body. The examination and the necessary experiments were conducted by M. Ozanam, assisted by M. Ide; and complete evidence of the presence of arsenic among the shapeless tissues of the stomach was obtained.

There was a very singular case investigated in Paris during the last year. I allude to that in which the remains of a murdered female were disinterred, identified, and the mode of death ascertained, after a lapse of eleven years. Little more than a heap of bones was found; but, from their position, condition, and several peculiarities, the reporters (among whom we find the names of Orfila, Barruel, Chevallier, and Boys de Loury,) were enabled to come to the following conclusions: 1. That those were the bones of a human skeleton; 2. of a female; 3. the age from sixty to seventy; 4. the stature about five English feet; 5. the hair had been bright blond, but latterly was mixed with grey; 6. the deceased had died of strangulation, the act being homicidal; and, 7. the remains had lain in the earth for several years.

The prisoners, who had long been suspected of the murder, were tried, and condemned to the gallies for life, having had a narrow escape of the guillotine.

It may be perhaps curious, and not uninteresting to you, to be reminded of certain disinterments which have taken place in this country for medico-legal purposes: we have some very remarkable ones on record. As a counterpart, and a sort of contrast to the 1 st case, let me call your attention to what occurred in the year 1758, at Knaresborough, in Yorkshire. I allude to the celebrated case of Eugene Aram, around whose history the pen of the novelist has recently thrown so much attraction, but whose plain unvarnished story is in itself, independent of any collateral fiction, almost a romance. The highly-gifted but unfortunate person, instigated by penury and jealousy, as it is said, but, above all, by the instigation of a depraved and profligate companion, committed a murder on one Daniel Clarke; and it was not till fourteen years

after that proof of the crime was procured: that proof was the skeleton of the victim. Suspicion had never been attached to the name of Aram, but the desperate Houseman was long supposed to have been the assassin. At length, a skeleton being found accidentally in a field at Thistlehill, near Knaresborough, it was thought to be Clarke's, and Houseman was examined at the inquest. He was much confused and conscience-stricken on the occasion; but, affecting a degree of levity which had just the contrary effect to what he intended, he took up one of the bones, and said, "This is no more Clarke's bone than it is my bone." Upon which he was immediately questioned as to where Clarke's bones were, for he had now as good as confessed that he knew. He turned king's evidence, denounced Aram as the murderer, admitted that he had been an accomplice, and described exactly where the true skeleton would be found. In St. Robert's Cave, he said, they would find it, "just by the entrance, and with the head turned

towards the right."

On the trial the skull was produced in court,—a ghastly witness against the accused. On the left side of it there was a fracture, that, from its nature, could not have been made but by the stroke of some blunt instrument; the piece was beaten inwards, and could not be replaced but from within. Mr. Locock, the surgeon, who was the chief, if not the sole, medical witness examined as to the appearances, give it as his opinion, "that no such breach as that pointed out in the skull could have proceeded from natural decay,-that it was not a recent fracture by the instrument with which it was dug up, but seemed to be of many years' standing." This seems to have been about the amount of the evidence, which, taken with the circumstantial detail given by Houseman and some other witnesses, operated in procuring the prisoner's conviction: if, indeed, Aram did not himself do more to that end, by the extraordinary and truly surprising defence which he made, at once singular for its eloquence and its learning. This, I may remark, was the opinion of the celebrated Dr. Paley, who happened to be present at the trial. Many years afterwards when conversing with some friends, about certain lives in the Biographia Britannica. which somebody observed were those of obscure individuals, Eugene Aram's, for instance. "Nay," said Paley, "a man that has been hanged has some pretensions to notoriety, and especially a man who has got himself hanged by his own cleverness, which Eugene Aram certainly did."

Aram called no witness for the defence. He relied wholly on his own ingenuity, and produced, certainly, most powerful arguments to shew that the bones discovered were those of some hermit, who had in former times dwelt in the cave; and he mentioned several cases similar to St. Robert's, in which human bones had been found. When we recollect that it is the great principle of our law, that no man can be condemned for murder unless the body of the person supposed to have been murdered be found and identified, we must at once admit the importance of the line of

argument taken up by the accused.

The identity, in fact, of the skeleton was not made out: so far from its being proved to be Clarke's, it was not even shewn to be that of a man; the sex was not proved, nor the age, nor, in short, any of the numerous points which, no doubt, would be elicited, were the examination instituted at the present day. All that was ascertained was, that here was a human skeleton, found as directed to be sought for by a wretch who had given information, in expectation of pardon for his crimes. Why might it not be wholly a plot of Houseman's, to get rid of the unfortunate Aram? He might have buried the bones there himself, or found them buried when digging in the cave, perhaps, for the concealment of plunder.

Let it not be thought that I am of the number of those who hold Aram to have been guiltless. The man is said to have confessed his crime before his execution. But my object in dwelling on the circumstances is to shew the very insufficient circumstantial testimony on which the prisoner's life was forfeited, under the semblance of law and justice. The truth seems to be (as Paley said, and as now seems generally admitted,) that Aram was chiefly indebted to his own eloquence and cleverness for the forfeiture of

his life.

About the close of the seventeenth century occurred the deeply interesting trial of Mr. (afterwards Judge) Cowper, for the murder of a young Quaker lady. There can at present be little doubt but that the deceased drowned herself in a fit of disappointed love: at the trial, however, and for a long time after, much contrariety of opinion prevailed as to the question, whether she was simply drowned, or murdered first, and thrown into the river afterwards. The evidence for and against the prisoner was chiefly derived from the appearances of the body, disinterred six weeks after burial. No water was found in the stomach and lungs; a fact deemed conclusive by one party that the lady could not have been drowned; but competent witnesses on the other side, among whom were Garth, Sir Hans Sloane, and Cowper, the celebrated anatomist, shewed, according to a more correct pathology, that the introduction of water into the cavities on submersion is purely accidental, and that there were appearances enough in this case to indicate suicidal drowning. The lungs, stomach, and abdominal viscera, I may add, were found perfectly sound at the time of the medico-legal examination.

In the year 1828 there was another remarkable case, in which the chief evidence for the prosecution was derived from a medicolegal disinterment. You will probably remember the circumstances of the trial of Corder, for the murder of Maria Martin. The body of the victim was found buried in a barn, where it had lain for eleven months. On the trial, Mr. Lawton, the surgeon, stated, that he first saw the body in the hole where it was discovered. It was much decomposed, and had the appearance of

having been buried for nine or ten months at least. He then described the dress, and gave so many particulars relative to what he observed, that the deceased was completely identified, and the manner of her death exactly made out. A handkerchief was found tied tightly round the neck, forming a groove. In the neck there was also the mark of a perpendicular stab, about an inch and a half in breadth, extending deep into the neck. There was an appearance of injury to the right eye, and the right side of the face; it seemed as if something had passed in at the left side, through the cheek, removing the two last grinders, and then out at the right orbit. This was apparently done by a pistol-ball. The lungs and chest were also examined, and there was found a wound between the fifth and sixth ribs, penetrating into the substance of the heart. This was effected by a sword, which was produced.

The sword was identified in court by the cutler who had sharpened it for Corder; and the head of Maria Martin was also identified, chiefly by the loss of a tooth in the upper and lower jaw. The observatious made in the lungs, too, were important; there were adhesions of the pleura, and other marks, by which it appeared that the deceased had had cough and pain of the chest not long before death, which was precisely Maria Martin's case.—Dr. Cummin, in Med. Gazette.

CASES OF PERSONS FALSELY IMPRISONED AS LUNATICS.

Pinel is equally in favour of removal, and of asylums, when well conducted; but intimates that the interest of the proprietors is opposed to that of their patients. He says, p. 52, "I was engaged to attend, in a professional capacity, at an asylum, where I made observations upon this disease for five successive years. My opportunities for the application of moral remedies were, however, not numerous. Having no part of the management of the interior police of that institution, I had little or no influence over its ser-The person who was at the head of the establishment had no interest in the cure of his wealthy patients, and he often unequivocally betrayed a desire that every remedy should fail." As human nature is the same every where, there can be no doubt that what is true in France is equally so in England, and that lunatic asylums of every description, and especially private ones, ought to be placed under very strict police superintendance. Certainly it is the interest of the patients to be cured as speedily as possible; whilst it is as evidently the interest of the proprietors to retain their patients, especially their wealthy ones, during the remainder of their days; in which sinister purpose they are very frequently seconded by other interested parties. Whilst writing these pages, the author was attending a lady for a disease of the skin, who, two years previously, had been dismissed from a lunatic asylum by the visiting commissioners of the College of Physicians, London, after having been confined therein five years by her husband, in order that he might live undisturbed in open adultery with another woman. This

unfortunate patient is the mother of eight children, and rather weak in her intellects, but in no respect to such a degree as to justify her being confined in a mad-house: on the contrary, she conducted her domestic affairs, and brought up her family with credit, till her husband became fascinated with a lady of superior attrac-He then found out that his wife was a fit inmate for one of those large establishments "in and about the metropolis;" and no doubt he thought it very "fortunate" that their doors stand, like . traps, ever ready to open inwards .- Dr. Gaitskell, on Mental Derangement.

METEOROLOGICAL REGISTER,

FROM DECEMBER 1, 1834, TO FEBRUARY 28, 1835.

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer-		Barometer.		De Luc's Hygrometer	Winds.		Atmospheric Variations.			
1.0.0	max.	min.	9 a.m.	10 p.m.	9a.m.1	0.pm.	9 a.m.	10 p.m.	9 a. m.	2 p.m.	1 10 p.m.
Dec. 1 to 7	52	41	30.22	29.08	81	76	ssw	wsw	fine	fine	shower
7 to 14	51	30	.37	30.11	81	76	wsw	NE	fine	fine	foggy
14 to 21	47	37	.36	29.16	84	79	NNE	NNW	fine	rain	cloudy
21 to 31	55	36	.31	.60	88	78	NNW	ENE	fine	foggy	rain
Jan. 1 to 7	47	21	.45	.97	85	74	NNE	ENE	cloudy	fine	foggy
7 to 14	51	28	29.90	.42	88	80	ssw	sw	fine	fine	rain
14 to 21	49	26	30.03	.10	91	80	sw	NW	rain	fine	snow
21 to 31	51	36	.17	.85	87	74	wsw	ssw	cloudy	fine	foggy
Feb. 1 to 7	52	36	.20	.59	76	55	wsw	sw	cloudy	fine	fine
7 to 14	51	30	.18	.53	62	52	wsw	sw	cloudy	mist	fine
14 to 21	52	31	.99	.01	62	54	wsw	s w		fine	rain
21 to 28	50	31	.97	.01	57	52	sw	8		rain	rain

The quantity of Rain fallen in December, 88 100ths of an inch.

The Rain for January cannot be stated, owing to frost. In February, the Rain-gauge was blown down, and broken: consequently, the Rain cannot be given for that month.

NOTICES.

Our Readers will observe, that, in order to make room for a considerable quantity of interesting foreign matter, we have given twenty-four pages extra in our present Number.

It is with great pleasure that we announce to our readers, that G. T. BURNETT. Esq., Professor of Botany at King's College, was elected Professor of Botany to the Society of Apothecaries, on the 17th of March. We regret that we cannot insert the Review of Andral: it shall be left for

the author at our publisher's.

The conclusion of Dr. STROUD's Paper is unavoidably postponed, for want of room. We have received the following Works:

TWINING on the Diseases of Bengal.

COWAN'S Translation of Louis on Phthisis.

ROYLE'S Himalayan Plants. Part v.

WEATHERHEAD on Rickets. Second Edition.

QUAIN'S Anatomical Plates. Fasc. XXII. XXIII. and XXIV.

HOUSTON'S Catalogue of the Museum of the Royal College of Surgeons in Ireland.

GREEN on Diseases of the Skin.

Cyclopædia of Medicine. Part xxv.

HODGKIN on the Means of Preserving Health.

MURRAY'S Manual of Chemical Experiments. Fourth Edition.

GRANT's Comparative Anatomy. Part 1.

Neill's Ophthalmic Report.

DESBERGER'S Marriage Almanack.

We shall review several of them in our next.

THE

MEDICAL QUARTERLY REVIEW.

REVIEWS.

Lectures on the Diseases of the Urinary Organs. By SIR BENJAMIN C. BRODIE, Bart., v.P.R.s., Serjeant-Surgeon to the King, and Surgeon to St. George's Hospital. Second Edition.—London, 1835. 8vo. pp. 329.

THE impulse which every branch of knowledge has of late years received, has been strongly felt by those sciences which have immediate relation to our profession; and each, in generous rivalry, strives to outstrip the others in the rapidity of its progress. Chemistry can boast of her Davy, who, armed with the voltaic battery, has unravelled some of nature's most artful handiwork; and of a Faraday, who at one time compresses aeriform matter into liquid, and the liquid into a solid form,—at another, lifts the veil from magnetic attraction, and gives us at least a glimpse of the secret of its origin. microscope not only discloses new facts in anatomy, but seems about to reveal the very essence of morbid structure; Vegetable becomes the rival of Animal Physiology; while Medical Jurisprudence, rising into the rank of a science, points to detected murderers (like serpents strangled in its cradle,) and gives promise of the most gigantic labours. Physic has pressed the ear into her service, and, by means of the stethoscope, can watch the progress of disease in the living body, with a hitherto unattainable accuracy. Amidst all these competitors, Surgery need not hold down her head, but, appealing to the splendid discovery of Elderton, Civiale, and Heurteloup,—to the operative dexterity of an Abernethy or a Mott,—or to the more laborious investigations of Cooper and Brodie, who, dividing between themselves the frame of man, have travelled through the whole province of chirurgical disease, marking out the boundaries that divide cognate maladies,—may not merely claim an equality with her rivals, but assert her superiority in the brilliancy and utility of her achievements.

It is the peculiar characteristic of the recent improvements in our profession, that they are chiefly of a practical nature; whereas, in the last age of the art, (if we may be allowed to make a division in what is essentially continuous,) its princi-

NO. VIII.

ples were more particularly investigated. It is true that Pott and Hey, Desault and Richter, must be reckoned among the greatest practical surgeons; but the labours of the Hunters and Bichat so much surpass all others, that they may with justice be adduced as stamping the character of the times in which they lived. But, in the present day, the distinguished surgeons of this country, whom we have before named, with Dupuytren, Scarpa, and others, abroad, have employed themselves in the analysis of disease, rather than in abstract researches into the nature of morbid action. the cultivators of natural history, they have often shown that the genera established by their predecessors were too comprehensive, and that the species were in fact frequently generically distinct; and, discarding the nomenclature derived from some prominent peculiarity or fanciful hypothesis, they have substituted one founded on the morbid alterations of structure. Thus, the name of white swelling is no longer employed to designate every variety of diseased joint; but inflammation of the synovial membrane, ulceration of the cartilage, &c. are now separately recognised; and the term spina ventosa is obsolete, -necrosis, abscess of the bone, &c. being accurately understood and identified.

We may go further, and assert that many of our recent improvements consist of the practical application of principles investigated in the last age. For, if to Hunter we owe any accurate idea of the nature of union by the first intention, Sir Astley Cooper has the credit of having taught that lint, dipped in the blood of the patient, forms the best cement for a recent breach of surface, and has employed it with such success, that lacerated wounds of joints, and compound dislocations, are now not unfrequently saved from amputa-The great surgical physiologist of the last century first conceived the plan of arresting the course of the blood between the heart and an aneurismal tumour; but surgeons of our own times have thrown the ligature around the subclavian, innominata, and iliac arteries. William Hunter and Bichat explained the structure and functions of the synovial membranes; and Sir Benjamin Brodie has followed in their wake, describing the various diseases by which they may be affected. Other instances might easily be adduced, but we shall leave them to the ingenuity of the reader: we have said enough to prove the rapid advance of the art of surgery, more especially in its practical department.

We would not, however, be understood to say that the present age is so selfish in its labours as to reap the harvest of its predecessors' discoveries, without sowing other seed for the

benefit of its successors. Messrs. Bell, Mayo, and Magendie have laid open an extensive field, the cultivation of which has been already commenced by Mr. Swan, but in which there is still room for other labourers. Dr. Prout also has thrown so much light on the chemical changes of the secretions of the kidneys in the different diseases of the urinary organs, that great improvements in their treatment might naturally have been

anticipated.

It may be thought that in these observations we have spoken rather of the art than of the author before us; but our answer to such a charge would be, that, in reviewing the progress of the one, we in reality follow only the steps of the other. The advance of such men as Sir Benjamin Brodie constitutes the progress of the art in which they labour; for the point at which they halt forms for the time its limits. Those of our readers, therefore, who are anxious to keep in the front rank of their profession, will excuse our introducing an article on the few additions to be found in the second edition of this work; while our seeking the pretext of their existenc eagain to study his opinions, is the highest, no less than the justest, tribute of praise that we can offer to the author.

These additions arise from Sir Benjamin Brodie's recent experience, which has enabled him to acquire further information, both on the history and treatment of some of these diseases. We propose to consider each of these alterations consecutively as they occur in the work, omitting all that is to be found in the former edition; and we must therefore beg the indulgence of our readers, if our observations appear to want those natural links which should connect them together.

The proposition of dividing strictures of the urethra with a cutting instrument, introduced along the canal, originating, we believe, with M. Amussat, but brought into notice in this country by Mr. Stafford, has of late years attracted much attention. We scarcely do justice to Mr. Stafford, in only attributing to him the introduction of the plan into this country; for the instrument which he uses is so decidedly superior to that employed in France, that he deserves to share the credit of the inventor. Sir Benjamin Brodie does not speak very warmly in its praise: the following are his observations upon it.

"Cases may perhaps occur in which this method may be useful, but they are undoubtedly very few in number, and great caution will be necessary on the part of the surgeon whenever he ventures to have recourse to it. If it be required at all, it can only be in cases of very old stricture. But an old stricture occupies a considerable portion of the urethra, and in the division of it there must be always danger of the cutting instrument penetrating into the

surrounding cellular membrane; an accident which may be followed in some instances by extravasation of the urine, and the death of the patient; and in others by the formation of a new passage, either below or by the side of the old one, with all its attendant inconveniences, instead of the restoration of the old one." (P. 57.)

Our author's objections seem, however, to touch merely the abuse of these instruments: he points out the danger which want of skill may occasion, but he does not meet the broad question of what profit may be derived from this instrument in dexterous hands. This may perhaps arise from the consciousness of the importance which would be attached to his opinion by the profession; but, as we are not similarly fettered, we shall venture to make a few remarks on the intrinsic

merits, both of the plan and instruments.

It is obvious that Mr. Stafford's plan is excellent in theory, for the most strenuous objectors to his instrument will not deny that the process of cutting the stricture, which may be done in a few minutes, is much more summary than that of dilatation, which requires many weeks, if not months, for its accomplishment. They may perhaps affirm, that the stricture in such cases is more likely to return, inasmuch as a cicatrix has always a disposition to contract. This may or may not be: every stricture will return, if a bougie be not occasionally passed; and we cannot consider it any serious objection to this plan, that the bougie must be employed every fortnight, instead of every month, since its passage is attended with no But here, as in other cases, practice has inconvenience. followed theory with a limping step. Mr. Stafford's instruments are either straight, or they have the common urethral curve; the former being intended for the whole anterior part of the canal, the latter for such obstructions as occur after it turns upwards to open into the bladder. The form of these instruments depends upon the supposed course of the urethra, which is said to be straight for the greater part of its length. It is here that the difference of our opinion from the inventor's begins; for, though a straight instrument will readily pass along this portion of the canal, the urethra is not naturally straight. A portion of it is tied up to the pubis by the triangular ligament, while the part immediately in front of it is drawn downwards and backwards by the sphincter ani and transversi muscles. It is said that elongation of the penis will draw the canal into a straight line: this may be true in the dead body, but we doubt its truth in the living. The sphincter ani, in nine cases out of ten, contracts powerfully on any attempt to pass a bougie, and must render the course of the urethra somewhat irregular; and any, the slightest, irregularity renders the use of this instrument dangerous. But there is another objection of equal importance. The thickening of the parietes of the urethra, which constitutes the stricture, does not take place equally in every direction; the lower part being generally more affected than the upper. Now, these instruments, cutting on each side, are as likely to wound the sound as the diseased parts; and hence may follow the train of evils mentioned by Sir Benjamin Brodie. If such are the dangers of the straight instrument, we need not say that they are multiplied when it is curved.

We have here stated its inherent faults; but there is a still stronger objection to its general employment. It is extremely difficult to distinguish many cases of spasmodic from permanent strictures, and instances have come to our own knowledge where the operation has been proposed by persons perfectly competent to use the instrument, but where it was afterwards proved that no permanent stricture existed. Of course, in

such cases it is more than dangerous.

No surgeon can have been long in practice without having been consulted on cases of the vascular tumour of the meatus urinarius of the female, first described by Sir Charles Clarke; and none who have met with this disease but will be glad to acquire any additional information as to the best method of effecting its permanent removal. Our author has always recommended, after its excision, the use of the potassa fusa; but this plan was generally followed, in spite of every care, by excoriation of the adjoining parts. In order to prevent this, he has invented a shield, consisting of "a silver tube, incomplete in one part of its circumference, so that, when introduced into the urethra, it allows the caustic to be applied to the tumour, while the sound part of the urethra is defended from it." (P. 72.)

We were surprised that, in the former edition of this work, no mention was made of injections as a means of cure in inflammation of the bladder; more especially as we remembered that, in the lectures of which this book is the corrected transcript, very valuable instructions were given as to the method of employing them, and the benefits to be expected from them. It now appears that this silence was occasioned by our author's well-known caution in promulgating his opinions, until their truth has been tested by long experience. The deficiency is supplied in the present edition.

"The bladder is accessible to local applications, and the question will here arise, 'Can nothing be done for the patient by means of remedies of this description?' The following are the results of my experience on this subject.

"In aggravated cases of the disease, where the symptoms are at their greatest height, the mildest injections, even those of tepid water, will do harm rather than good. They are especially to be avoided where the mucus deposited by the urine is highly tinged with blood. When, however, the symptoms have in some degree abated, the injection of tepid water or decoction of poppies is in many instances productive of excellent effects. An elastic gum catheter may be introduced into the bladder, and the injection may be made by means of a small elastic gum syringe. The liquid should be allowed to remain in the bladder about thirty or forty seconds, and not more than an ounce and a half, or two ounces, should be injected at each time. If the bladder be distended, so as to occasion any considerable degree of pain, the effect is always injurious instead of being beneficial. This operation may be repeated, according to circumstances, once or twice in twenty-four hours.

"When there is a further abatement of the symptoms, the disease having assumed a still more chronic form, and the mucus being free (except on extraordinary occasions) from all admixture of blood, we may venture to add to the injection a very small quantity of nitric acid. At first the proportion ought to be not more than that of one minim of the concentrated, or ten minims of the diluted nitric acid, to two ounces of distilled water; but afterwards this proportion may be doubled. I do not say that it should never be increased still further, but I have observed, that for the most part injections, which are stronger than this, are not only not useful but actually prejudicial. In having recourse to this mode of treatment, it is better to wash out the bladder first with a little tepid water; then to inject the acid solution, allowing it to remain not more than thirty seconds in the bladder. At first the operation should not be repeated oftener than once in every two days; afterwards it may be repeated once daily, but never more frequently than this. If the urine drawn off by the catheter be tinged with blood, the injection should be deferred to the following day; and if the injection be at any time followed by pain, and other symptoms indicating an increase of inflammation, it ought not to be had recourse to again until these have subsided.

"I was first led to adopt the use of the injections of nitric acid in the year 1826; and from the experience which I have now had of them, I do not hesitate to say, that, if the precautions, which I have suggested, be properly observed, they will be found to form a valuable addition to our stock of remedies to be employed in these cases. They are useful not only where the chronic inflammation is the primary disease, but also where it occurs as a secondary affection, the result of a calculus in the bladder, or a chronic

enlargement of the prostate gland." (P. 91.)

Every surgeon who has been in the habit of using these injections will coincide with Sir B. Brodie in his opinion of

their extreme utility, though each may differ somewhat in the

details of the method to be employed.

There is one point, namely, the ill effects of distending the bladder, on which our experience has led, or perhaps seduced us, to a different conclusion from our author. Sudden and violent distention of the bladder is no doubt prejudicial, and has a tendency to increase, rather than diminish, the inflammation; but we have found that a gradual distention, so far from being injurious, is highly beneficial, by diminishing its irritability, and removing some of its most distressing symptoms. The necessary instruments are a catheter, similar to that used in the operation of lithotrity, (but with an extremely small opening, so as to secure the gradual entrance of the fluid into the bladder,) and its appropriate syringe. The following case will exemplify our method of employing the injection, and the

success attending its use.

Mr. W. K., ætat, fifty-four, a tradesman residing at Camden Town, placed himself under our care, for what was supposed to be stone in the bladder, on the 12th of February, 1835. He had suffered more or less from his present symptoms about three years, and had tried a variety of remedies, without any good effect. His complaints were, a very frequent desire to pass water, which awoke him seven or eight times every night, (the quantity of urine seldom exceeding an ounce at one time;) pain both before and after its evacuation, which was accompanied with violent straining; the urine was alkaline, of a brown colour, dreadfully fetid, and deposited a large quantity of ropy adhesive mucus, mixed with phosphate of lime, and occasionally streaked with blood; the bowels were very irritable, acting almost every time that he passed water; the countenance was pale, and the whole frame emaciated. On introducing a silver catheter, no obstruction was found in the urethra; but the third lobe of the prostate gland was slightly enlarged, so that about an ounce of urine was retained in the bladder, after the patient had endeavoured to empty it. No stone was discovered by the sound; but the bladder was so contracted, that the injection of two ounces of warm water occasioned very violent pain. He was ordered, on his return home, to use an enema, containing thirty minims of tincture of opium.

On the 15th, he expressed himself much relieved by the injection, the pain being the symptom most alleviated. Four ounces of warm water were introduced, but the last ounce and a half caused very severe pain. The whole quantity was not injected at once, but only sufficient at first to distend the bladder fully. The stopcock was then turned, till the patient

said he had no desire to pass water. Half an ounce or more was then admitted into the bladder: this caused considerable pain; but, on again turning the stopcock, so as to prevent the entrance of more fluid, the pain subsided in three or four minutes. The remainder was then injected, but the pain produced was so violent, that the whole was immediately drawn off.

On the 18th, he reported himself much better. He awoke only three times during the previous night to pass water, and the quantity passed was nearly two ounces each time. The injection was repeated, but six ounces of fluid were introduced; the quantity being guided by the resistance to the descent of the piston of the syringe, and the degree of pain felt by the patient.

21st. Better. Nearly eight ounces of warm water injected. 25th. He calls himself quite well, but the bladder does not completely empty itself, though it can bear a tolerable quantity of urine. Ordered to introduce a flexible catheter for himself daily. Rather more than half a pint injected.

March 15th. He bore today thirteen ounces of fluid in the bladder. The urine is no longer alkaline; the mucus has disappeared, excepting small flocculi that float in the water. He has no pain; the bowels are comfortably open; and in appearance he is altogether an altered man.

April 1st. No larger quantity of water than the thirteen ounces has been injected, but it now causes no pain; and, as he has no unpleasant symptoms remaining, he is recommended to introduce a flexible catheter once a week, after passing water, in order to ensure the bladder being emptied, and to discontinue his attendance.

It is this case, with others which we could mention, that induces us to differ from our author, as to the pernicious effects of violently distending the bladder in cases of chronic inflammation. We have no doubt that instances do occur where it may be hurtful, but we do doubt whether, in these, the inflammation does not partake of an acute character; in which case, any violence is likely to be followed by dangerous symptoms.

We now arrive at the most important addition which the work has received. In a note appended to the last edition, the author regretted his inability to complete the subject of the diseases of the urinary organs, by introducing a systematic notice of those affecting the kidneys. We have in the present edition, not indeed a systematic notice, but some first steps towards an account of these diseases. We shall, without preface, abstract the author's account of the symptoms

affecting the bladder, in consequence of disease of the kidney.

"Calculi of the kidney occasionally produce symptoms, which are referred to the bladder rather than to the kidney. I shall have occasion, in a future Lecture, to notice a well marked example of this fact, which occurred in my own practice; and you will find others referred to by Morgagni. 'A patient,' says this eminent pathologist, 'complained of very little pain in the region of the kidney; while he was tormented with pain in the bladder so excruciating, that five or six physicians who attended him entertained no doubt that the seat of the disease was in that organ. On dissection, however, no morbid appearance whatever was discovered in the bladder, but there were large and ramifying calculi of the

kidney.'

"If calculi of the kidney produce symptoms which may easily be mistaken for those of disease in the bladder, it may reasonably be expected that some other diseases of the kidney should affect the bladder in the same manner. Several years have elapsed since I was first led to suspect this to be the case, and the result of all the experience which I have since had has been to remove whatever doubts I might formerly have entertained on the subject. Whoever is much engaged in this branch of surgical practice will meet with a number of facts, which cannot so well be explained on any other hypothesis, and which collectively form such a mass of circumstantial evidence, as is almost irresistible, in favour of the opinion 'that the worst symptoms of irritable bladder may occur as a consequence of chronic inflammation, abscess, or other organic disease of the kidney, the bladder itself, and the organs in immediate connexion with it, having been free from disease in the first instance.'

"The opportunities of obtaining direct or positive evidence (that is, by means of post-mortem examination), on a point like this, are of comparatively rare occurrence; for so intimate is the union of the different organs which constitute the urinary system with each other, that disease can scarcely exist for a great length of time in one of them, without extending in a greater or less degree to the rest. Such opportunities are, however, occasionally met with where the patient has died before the disease has reached its most advanced stage; and I am able to adduce the following interesting history in illustration of the foregoing observations.

"A gentleman consulted me in November, 1833, labouring under the following symptoms: He voided his urine frequently, and in quantities varying from an ounce to an ounce and a half. Always after making water he had a severe pain lasting a few minutes, and extending along the course of the urethra. The urine was pale, semi-opaque, of an acid quality, and, when tested with heat and nitric acid, it was found to be highly albuminous. Occasionally, small masses of a substance resembling coagulated albumen were seen floating in it. He made no complaint of pain in the loins; he was able to empty his bladder by his own efforts, and the urethra was free from stricture. There was no calculus in the bladder, nor had sand or gravel ever been observed in the urine. These symptoms had begun to exist in the preceding February, since which time they had gradually increased. For a short time during the month of March, the urine had been tinged with blood.

"In addition to these local ailments, the general health was much impaired: the patient had lost flesh, was languid, dejected,

and of a pallid countenance.

"Soon after I was consulted, the urine became again tinged with blood. The bodily powers continued to fail, and the local symptoms became more urgent. There was a total loss of inclination for food, the extremities became cold, the pulse feeble, and he

died at the end of February, 1834.

"On examining the body after death, the kidneys were found to be of a dark colour from excessive vascularity, and of a soft and somewhat brittle consistence; the distinction between the cortical and tubular positions being less marked than under ordinary circumstances. The investing membrane of the kidney had a very slight adhesion to the kidney itself, but it adhered very closely to the adipose substance of the loins. On the surface of each kidney, and partly imbedded on its substance, were four or five membranous cysts, each of the size of a large pea: and in one of them there was a similar cyst, but as large as a nutmeg, completely imbedded in the cortical substance. The pelvis, infundibula, and ureters, were not more capacious than under ordinary circumstances; but, on their being slit open, their internal membranous surface presented the appearances of considerable inflammation.

"It could not be said that the bladder was found altogether free from disease, but the morbid appearances were so slight, compared with those observed in the kidney, that it seemed impossible to doubt that the last-mentioned organ had been the seat of the primary disease, and that the latter was affected only in a secondary manner. It was contracted, and the muscular tunic was somewhat thickened; but not more so than they must have been in a person, who from any cause had been teased for a considerable time by an incessant inclination to void his urine. The vessels of the mucous membrane were turgid with blood, but not in the same

degree as those of the membranous parts of the kidneys.

"When we say that there is an irritable state of the bladder, depending on disease of the kidney, it is of course intended to express that the inclination to void the urine occurs at short intervals, and when there is but little urine in the bladder. In addition to this there is sometimes a cutting pain, either confined to the neck of the bladder, or extending forward in the course of the urethra after each effort to make water; at other times there is no pain whatever, beyond that which is always felt when the bladder is distended with more urine than it can well contain. In most in-

stances there is some degree of pain in the loins, but in some there is none whatever. The urine is generally albuminous, being voided slightly turbid, and becoming opaque on the addition of nitric acid; or, if not albuminous constantly, it is so occasionally. In some instances it is voided of the colour of whey, and, on being allowed to stand, deposits a purulent sediment. It is generally acid, and occasionally tinged with blood. Small globular masses of semitransparent lymph are sometimes seen floating in it; and in one instance the patient used to void, at intervals, considerable masses of opaque, laminated, firmly coagulated lymph, of an oblong and somewhat conical shape. These seemed to have been moulded in their passage down the urethra, and, before they came away, they produced symptoms similar to those which precede the expulsion of renal calculi." (P. 95.)

Such is the affection of the bladder, according to the author, sympathetic with disease of the kidney; but he adds a caution, not to value these symptoms at more than they are worth, as it is his opinion that future investigations will throw more light on the subject.

The treatment which Sir B. Brodie has found most efficacious is as follows:

"In the treatment of these cases you will find that opiates, whether exhibited by the mouth or in the form of clyster, are productive of a temporary advantage; and these remedies may be employed on special occasions, when the symptoms are more than commonly distressing. There are, however, well-founded objections to the constant use of opiates, inasmuch as they do nothing more than palliate the symptoms, without removing the cause which produces them; and as they are always liable, after a certain time, to injure the patient's general health, by confining the bowels, and deranging the secretions of the liver. A gentleman whom I attended formerly, suffering from a most severe irritation of the bladder, in consequence of disease in the kidneys, discovered another and a more innocent method of giving himself relief. Once daily he introduced an elastic gum catheter, through which he injected into the bladder as much tepid water as it was capable of containing. At first, the bladder would admit only a very small quantity, perhaps an ounce; but by degrees he was able to inject a larger quantity, amounting at last to half a pint or more; and now, instead of voiding it every twenty or thirty minutes, he was able to retain his urine for two hours or even longer. Thus he contrived to keep himself in a state of comparative comfort; but the relief was only temporary, and as soon as he omitted the use of the injection, the bladder relapsed into its former habits.

"It is reasonable to suppose, that the patient will profit most from the use of those remedies which are directed to the original seat of the disease; blisters, setons, and issues in the loins, may be had recourse to, and are productive of the best effects. Their influence over the disease is most marked in those cases, in which there are deposits of pus, or small masses of coagulated lymph, floating in the urine; the former becoming in some instances very much diminished, and the latter even disappearing altogether, soon after the counter-irritation has been well established. The uva ursi has had a doubtful reputation as a remedy in cases of disease of the bladder, some believing it to be of great efficacy, and others attributing to it no efficacy whatever. My own experience would lead me to suspect that its influence is confined to the cases of which I am now treating, but that in these it may in some instances be employed with very great advantage. It must be administered, however, in larger doses than those which I find to be in common use. Thus from 3j. to 3ij. of the extract may be given in pills daily, or Oss. to Oj. of the following infusion, which has appeared to me to be more efficient than the extract:

R. Foliorum Uvæ Ursi, 3 j.

Aquæ distillatæ ferventis, Zxviij. Macera per horas ij., dein decoque ad Oj. et cola.*

"In some instances it has appeared to me that the patient has derived marked benefit from the exhibition of the Tinctura Ferri Muriatis, in doses varying from m.x. to m.xv. three times daily; and, in others, from that of the infusion of wild carrot-seed, given in the following manner:

R. Seminum Dauci contusorum, 3j.

Aquæ ferventis, Oj. Macera per horas ij. vel iij. et cola. The whole of this quantity may be taken daily. None of these remedies, however, produce an immediate improvement, and the patient must make up his mind to persevere in the use of them for a considerable time." (P. 100.)

Our author says nothing concerning the diet to be observed in these cases; but we believe we may add, that a low diet is not attended with the advantage which might be expected, from the antiphlogistic nature of the remedies. Light but nutritious food, in moderate quantities, with even a small quantity of wine, will sometimes be found to calm the irritability of the bladder. We have known an instance of a gentleman suffering under these symptoms, who, in the morning, was incessantly attempting to pass water; but, after dinner, when he had taken two or three glasses of sherry, he would remain undisturbed for several hours.

Sir Benjamin Brodie next propounds two questions, to be

[&]quot;When the Uva ursi is taken in large quantity, it imparts a greenish colour to the urine; which, however, is most distinct when that fluid happens to be alkaline; and it may, perhaps, be admitted as a question, whether the good effects which it produces do not immediately arise from the astringent principle which it contains being brought into contact with every part of the kidney, while it is, as it were, being filtered through the minute vessels which belong to its secreting structure."

answered by future investigators. The first is, "Wherefore does it happen that calculi of the kidney, or chronic inflammation or abscess of that organ, should occasion symptoms, such as have been described, in some instances, and not in others?" (P. 103.) As the importance of this query to a scientific line of practice is evident, even a feeble attempt to solve it may be pardoned: we will therefore take the liberty of relating a case, which may at first appear foreign to the subject, but which appears to throw some light upon the point mooted.

Mr. N., a clerk in a public office, was recommended to our care by one of the most eminent physicians in London, in order to ascertain whether he had a stone in the bladder. He complained of severe pain in the loins, which had existed three or four months, and for which he had been cupped. This pain shot down in the direction of the ureters, and affected both the pubes and testicles. After making water, which he did very frequently, he had pain shooting along the canal of the urethra. The urine was pale, and the addition of nitric acid caused the coagulation of a considerable quantity of albumen. He had grown extremely thin, and there was an expression of extreme anxiety in his countenance. He had never passed either sand, gravel, or blood, in his urine. examined the bladder with a sound, but no stone was discovered, and, excepting that it was somewhat tender at the neck, there appeared to be no disease there. Such were the symptoms as they appeared at the time, and, under the supposition that there was disease of the kidney, he was directed to take small doses of opium, until this opinion could be represented to the physician who had committed him to our charge. He was requested to attend us in three days' time; but on that morning his servant came in his stead, to inform us that, as he was quitting the house for the purpose, he had On June 5th, 1835, (two days afterdropped down dead. wards,) we examined the body. The neck of the bladder was a little more vascular than usual, as also were the kidneys, but hardly enough to constitute disease. The cause of the symptoms was found to be a large aneurism of the aorta, just as it passed through the diaphragm, which had burst into the right pleura. Could its pressure upon branches of the same plexus of nerves as supplied the kidney occasion the similarity of the symptoms?

The second question propounded by our author is of more easy solution.

"What is the effect of long-continued irritation of the bladder, depending on the sympathy of that organ with disease in the kid-

ney, or of the bladder itself? It is reasonable to expect, and it corresponds with what happens in some other analogous cases, that the bladder, thus sympathetically affected, should at last become itself the seat of actual disease. I have related a case, in which, although it was plain that the principal and primary disease was in the kidney, there was also a slight degree of inflammation of the mucous membrane of the bladder. Now, if the patient had lived some time longer, is it not probable that this would have gone on increasing, until the urine had become loaded with a thick, tenacious, alkaline mucus; the patient suffering, at the same time, from those other distressing symptoms with which that morbid secretion is usually accompanied. Other cases have fallen under my observation, in which chronic inflammation of the mucous membrane of the bladder existed to a considerable extent, in combination with disease of the kidney, and in which, from the history of the case, it could not be doubted that the former was altogether a secondary disease; the kidney having been the part primarily affected. As the kidney sooner or later participates in disease which has had its origin in the bladder, so does the bladder ultimately suffer in consequence of disease which began in the kidney." (P. 103.)

A section has been added, in the present edition, on Scirrhus of the Prostate Gland. It will be seen, from our author's expressions, that he has not quite satisfied his own mind of the existence of such a disease; but we leave him to make his own statement.

"I have observed that malignant diseases of the prostate are of rare occurrence. I have, however, seen cases in which I could not well doubt that the prostate was affected by scirrhus, although I had no opportunity of positively ascertaining the fact by dissection.

"In February, 1831, a gentleman from Maidstone, fifty years of

age, consulted me under the following circumstances:

"He complained of a too frequent indication to void his urine; so that he was disturbed not less than ten or twelve times in the course of the night. The act of voiding it was attended with some degree of difficulty; and occasionally he observed that it could not be accomplished in the position in which he then was, and he was under the necessity of altering it. A small quantity of urine sometimes flowed involuntarily after he thought that his bladder was emptied. He suffered a severe and constant pain, extending from the left groin across the lower part of the abdomen above the pubes, and also down the thigh and leg. The pain above the pubes was aggravated during the effort to make water. He compared the pain in the thigh and leg to that which he suffered when he had sprained his thumb, and said that it prevented his throwing the weight of his body on that limb when he stood erect. There was an enlarged and indurated gland in the groin, to which the pain was referred. The urine was high coloured, but otherwise in a healthy state, free from mucus and albumen. A catheter having been introduced after he made water, it was ascertained that there was no obstruction in the urethra, and no residuary urine was found in the bladder. He had lost flesh, and had the aspect of a person labouring under a malignant disease. He was hot and feverish at night, and the pulse was never less than one hundred in a minute. The prostate gland being examined from the rectum, was found not very much enlarged, but of a stony hardness.

"The symptoms which I have described first showed themselves in the preceding August, and had gradually increased up to the

time of my being consulted.

"It appeared to me that the circumstances of this case were not well to be explained, except on the supposition of the prostate gland being affected with the true scirrhous disease; and Mr. Travers, who was consulted, also came to the same conclusion.

"The patient returned to Maidstone, and died shortly afterwards. There was no opportunity of examining the body after death.

"Another case fell under my observation, in which, also, I was led to believe that the patient laboured under scirrhus of the prostate. I preserved no notes at the time, but I know the following

history to be accurate as far as it goes.

"A gentleman, about sixty years of age, who had been long in India, consulted me a few years ago respecting what appeared to be a chronic enlargement of the prostate gland. There was nothing unusual in his symptoms, and I merely recommended him the regular use of the catheter. From this treatment he derived much

benefit, and he persevered in it ever afterwards.

"It was not less than five or six years after this period that I was requested to see him again, in consultation with Dr. Latham and Mr. Mawdslay. He now could void no urine without the assistance of the catheter. There was a constant and most severe pain, referred to the neck of the bladder, which was not relieved on the urine being drawn off. The urine deposited a considerable quantity of adhesive mucus, and was of an ammoniacal odour. The prostate gland, examined by the rectum, was found to be much enlarged, and of a stony hardness. From these circumstances we were led to suspect that the prostate had become the seat of a true scirrhous disease; and, in confirmation of this opinion, we found the patient complaining of excruciating pains in various parts of the body, sometimes in one part, sometimes in another, which could be compared to nothing except the pains under which persons afflicted with carcinoma occasionally labour. Altogether, I may say that I have never seen a human being whose sufferings were more intense; and they were scarcely mitigated by the exhibition of very large doses of opium. I continued to visit him occasionally, in consultation, for nearly a year, at the end of which time he suddenly lost the use of the muscles of his lower limbs, and died in a fortnight afterwards. Permission was not obtained to examine the body; but it is worthy of notice, that a lady, whose

case is related in the eighth chapter of the last edition of my work on Diseases of the Joints, and who had long laboured under carcinoma of the breast, died after a similar attack of paralysis of the lower limbs, and that in her it was ascertained by dissection, that the cause of the paralysis was a conversion of the bones of the spine into the scirrhous stricture." (P. 161.)

The remaining observations introduced into the present edition have reference to the different methods of extracting a stone from the bladder through the urethra. The following directions for the use of Sir Astley Cooper's urethra forceps, as improved by Mr. Weiss, are so excellent, that we need no apology for quoting them.

"In using these forceps, you should select a pair of as large a size as the urethra will readily admit. If you have reason to believe that the stone is of a very small size, or that there are several small stones, it is better that the opposite surfaces of the blades should be made concave: otherwise, they may be nearly flat, and somewhat serrated. The patient should be laid on his back; and it is generally better that his pelvis should be supported by a thick cushion, so that it may be higher than his shoulders. step of the operation is to introduce a silver catheter, and thus empty the bladder of its contents. From five to six ounces of tepid water are then to be injected into the bladder, so as to distend it moderately. If any considerable portion of the water should escape, the injection should be repeated; it being absolutely necessary that the operation should never be attempted on an empty bladder. The forceps are next to be introduced, and of course in their closed state. They are first to be used as a sound, so as to ascertain the exact situation of the calculus. If this be not readily detected, the forceps may be withdrawn, and an ordinary sound may be used instead: or the patient may be directed to turn on one side, placing himself on his back again afterwards; by which change of position the stone may probably be made to roll into some more convenient place, so as to be more within reach of the forceps. The forceps are then to be cautiously opened over the stone, and afterwards closed upon it. By this simple management, with a light hand, the stone is seized with facility, in the great majority of cases: otherwise, you may succeed by the following method, which is especially adapted to those cases in which the bladder contains several stones of a very small size.— Let the forceps be opened with the convexity of its blades pressed against that part of the bladder which is towards the rectum, so as to make it the lowest or most depending situation. Then, by a slight motion given to the handle of the instrument, the stones are made to roll into its grasp; and thus I have sometimes been enabled to remove several small stones at once.

"The advantage arising from the elevation of the pelvis is, that the stone is then less liable to be lodged near the neck of the bladder, where the seizing it is always more difficult than when it lies near the fundus. Attention to this point is especially of importance in cases of enlarged prostate. Sometimes, however, when the stone is very large, notwithstanding this precaution, it will remain in the hollow behind the prostate. In order to seize it, you must then turn the forceps round, so that the convex part of it may be towards the pubes, and the extremity towards the rectum. This part of the operation, however, must be executed with great caution, as, otherwise, serious injury might be inflicted on the prostate, or even on the bladder itself.

"When the stone is grasped, you may know exactly its diameter by means of a scale fixed to the handle of the forceps. If it be of a very small size, you have only to withdraw the forceps from the bladder in the usual manner, and the stone with it. If it be of a very large size, so that it is evident that it cannot be made to enter the urethra, you need only open the forceps again to set the stone at liberty; and you may then determine, at your leisure, what other method should be adopted for the patient's relief. But the forceps may seize a stone of an intermediate size; one which may be made to enter the urethra to a certain distance, being then stopped by some narrow portion of the canal. The neck of the bladder is very easily dilated, and a stone of considerable size may be drawn into that portion of the canal which lies in the perineum. It may then be very distinctly felt through the integuments behind the scrotum, and if a small incision be made on it in this situation, it is easily extracted; the forceps, after the removal of the stone, being closed, and withdrawn in the usual manner. I have performed this operation several times, and have extracted stones of more than an inch in one, and of nearly an inch in another, diameter. simple, that, in two instances in which I had recourse to it, although I had no pair of hands to assist me but my own, it was not attended with the smallest difficulty. The patient should be directed to remain in bed afterwards, and an elastic gum catheter should be allowed to remain in the urethra and bladder, for the purpose of drawing off the urine, and preventing it dribbling through the wound. With this precaution, the wound will, in some instances, be enabled to heal in less than a fortnight.

"But it will sometimes happen, that a stone which is easily drawn through that part of the urethra which lies in the perineum, meets with an impediment in the anterior part of the canal; that is, either at the external orifice, or exactly at the anterior part of the scrotum, or somewhere in the intermediate space. If the impediment be close to the orifice, that part is easily dilated by means of a probepointed bistoury, and if it be in some other part of the canal, you may remove it by means of an incision made through the skin, corpus spongiosum, and membrane of the urethra. Let me caution you, however, never to make such an incision into the urethra close to the scrotum. It is difficult, even by the constant retention of an elastic gum catheter, to prevent a small quantity of urine find-

ing its way into the loose cellular texture of the scrotum; and this may be productive of a succession of troublesome abscesses, or even of dangerous consequences. Such experience as I have had, would make me altogether more averse to the excision of stones from the urethra, where it is connected with the penis, than where it lies in the perineum; and a very simple contrivance makes such a proceeding altogether unnecessary. The forceps should be constructed so as to admit of the introduction of a screw, by means of which considerable pressure may be made on the moveable blade. When the stone is felt through the corpus spongiosum, and can be drawn no farther without lacerating the membrane of the urethra, instead of using the knife, introduce the screw, and it is immediately crushed: after which the difficulty of extracting it is at an end. If a few fragments remain in the urethra, they are forced out the next time that the patient has occasion to void his urine." (P. 245.)

It is of the utmost importance that surgeons, who intend to use this instrument, should practise with it frequently on the dead body; or what is both a safe and easy operation, becomes difficult, tedious, and dangerous. We have seen the most severe inflammation of the bladder follow long and ineffectual efforts to extract a stone, while others have been relieved in less than a minute of all their sufferings. We are not advocates for operating in general by the stopwatch, and we scarcely admire the man who can lithotomize in a minute; but in this operation celerity is safety, and the only danger arises from its prolongation.

The last portion of the work which we shall extract is our author's comparison between the merits of lithotrity and lithotomy. After giving a slight sketch of the history of the former, (in which he gives the credit of the original idea to General Martin and Mr. Elderton,) he thus proceeds:

"It must be acknowledged that this operation possesses several advantages over lithotomy. It is less formidable to the patient. It requires little or no confinement; and many individuals will be induced to submit to it at an early period, who would not have mustered courage to submit to lithotomy, until after a lapse of time, when their sufferings had become excessive, and when, probably, circumstances had arisen to render the operation dangerous. To this may be added, that there is no danger of hemorrhage, nor of those ill consequences which arise from an incision or laceration extending into the loose cellular structure which surrounds the neck of the bladder.

"But it is scarcely to be expected that any method can be devised of relieving human nature of so great a calamity as that of a stone in the bladder, which shall be altogether free from difficulty and danger; and it is no disparagement to so great a discovery, as that of the lithontriptic operation, to enumerate the following as

the principal disadvantages belonging to it. The patient does not obtain a cure at once; and in many instances, the process, by which the stone is crushed, requires to be repeated several times. As the smallest fragment which remains behind will form the nucleus of a new stone, a recurrence of the disease is more likely to take place after the lithontriptic operation, than after that of lithotomy, especially in those cases, in which, in consequence of an enlargement of the prostate gland, the patient is unable completely to empty his bladder. The operation is by no means well adapted, except to calculi of moderate size; and when applied to those of larger dimensions, it is either altogether impracticable, or difficult, tedious, and dangerous. When the stone is large, the sharp angular fragments lying in the bladder induce inflammation of its lining membrane, attended with severe local suffering, producing afterwards much disturbance of the general system, and either retarding the cure, or terminating in the patient's death. It is further to be observed, that those complications of disease in the kidneys, or bladder, or ulcerated prostate, which render the old operation hazardous, render the new operation hazardous also; so that the invention of the latter does not relieve us of those cases, in which experience has taught us to shrink from the performance of the former. As to the quantity of actual suffering which the patient has to undergo under one of these methods, as compared to that which belongs to the other, it is not possible to arrive at any satisfactory conclusion. The fact is, that the amount of pain is, for the most part, over-estimated; and that those who have gone through either of these operations, generally say afterwards, that the pain was less than they had expected. This observation, at least, applies to those cases, in which the bladder is healthy, and the operation proceeds favorably. If the bladder be inflamed, or any thing occurs to render the operation difficult and tedious, the patient undoubtedly suffers for the time severely, whether the stone be crushed, or extracted by incision." (P. 315.)

In conclusion, Sir B. Brodie recommends the employment of Weiss's screw lithotrite, as preferable to the hammer apparatus of Heurteloup; and, from experience, we can coincide in the recommendation.

We now terminate our review, or rather our abstract of the fresh instruction afforded to the profession in this edition. In doing so, while we feel, on the one hand, that praise is here a work of supererogation, and that the unanimous verdict of every competent judge does not require the concurrence, however cordial, of an anonymous reviewer; we are equally sensible that it would be absurd, as well as uncourteous, to conclude without remarking, that the present is one of the few productions of our time, which no practitioner can neglect to study, without injustice to himself and to his patients.

Clinical Illustrations of the more important Diseases of Bengal, with the Result of an Inquiry into their Pathology and Treatment. By William Twining, M.R.C.S., first Assistant Surgeon, General Hospital, Calcutta.—Calcutta, 1832. 8vo. pp. 705.

This work will be eminently useful to those who practise in Bengal, and will be read with profit by those who have little chance of seeing any patients excepting intra quatuor maria. Mr. Twining is a straight-forward, sensible practitioner: he has always a distinct object in view in his treatment, has plenty of patients, keeps ample notes, and makes careful dissections. The book of such a man must be useful; but it would have been far more so, had Mr. Twining been conscious that many excellent writers had preceded him in discussing the diseases of which he treats. Instead of this, he imagines, as we find from the last sentence of his preface, that the laborious and accurate observation of facts began only of late years: "a system, of late years, happily substituted for the vague conjectures of former ages." (P. xxiv.)

Now it happens that the remedy which he recommends so strongly in the treatment of dysentery, ipecacuanha, was used with great success by a host of physicians, who lived in the ages of vague conjectures; as Mr. Twining may see by consulting Dr. Copland's Dictionary, art. Dysentery. We may mention Helvetius in particular, who received a large reward from Louis XIV., for introducing the use of ipecacuanha in

this disease into France.

The first chapter of Mr. Twining's work is on Dysentery. After remarking that it is much more rapid and fatal in Bengal than the disease of the same name in England, he observes, that

"The most remarkable circumstances connected with the dysentery of Bengal, are the extensive local inflammation of the mucous membrane of the great intestines, coeval with the commencement of the disease; the early existence of ulceration; and, in many cases, a tendency to sloughing of that membrane; while the degree of pyrexia, and other constitutional symptoms, are for the most part incommensurate with the existing local affection, the general disorder being apparently infinitely less than is often observed attending a much slighter degree of local disease in other climates." (P. 1.)

The following are the symptoms, and a part of the post-

mortem appearances:

"We generally find the ordinary dysentery of Bengal to begin as a common purging, the evacuations differing little from the character of healthy stools, except in being copious and fluid; uneasiness and griping pains in the belly soon succeed, and are followed by tenesmus; blood, with mucus, is observed in the stools, often forming the greater part of them; and pressure over the course of the colon gives pain. There is anxiety and restlessness, the pulse is little affected, the tongue often moist and white, occasionally quite clean and moist; hardly any pyrexia exists, though the thirst is commonly urgent. The severity of the symptoms increases gradually, though sometimes very rapidly, until the evacuations consist entirely of blood and slime, or of a bloody water, like the washings of raw meat. In such severe cases of only a few days' duration, masses of sloughing membrane are voided.

"Sometimes dysentery comes on suddenly, the most violent symptoms arising within thirty-six hours, and not preceded by any previous evident disorder; pure blood being poured out from the bowels in large quantities, at an early period of the disease which is attended with little distress, except the disturbance from frequent calls to rise to stool. In three or four days, the stools have a horrid odour of putrid blood, which has been compared to the smell of an anatomist's macerating tub; and there is a fætid cadaverous exhalation from the patient's body. This odour of the stools, a rapid weak pulse, and hiccup, are almost always signs of a fatal termination. These extreme symptoms are often found to depend on numerous distinct circular ulcers in the colon, with elevated thick and abrupt edges, which are in a sloughing state; while the muscular fibres of the intestine are apparent at the bottom of the ulcer, as if dissected clean. The disease seems to commence so suddenly, that we might suppose an extensive affection of the mucous membrane of the colon to take place, much in the way that eruptive diseases of the skin arise, and ulceration follows, the sloughing edges of the ulcers pouring out copious discharges of blood: so that the patient dies from the hemorrhage and irritation, in four, five, or seven days. Notwithstanding this dreadful state of disease, there is often little or no pyrexia, the tongue does not shew much sign of disorder, the pulse is frequently soft and compressible, the skin cool and perspiring freely; and pressure on the belly gives little uneasiness until we examine with care over the cocum, and then the patient almost always feels pain.

"In other cases, from the very commencement of the disease, the desire to go to stool is incessant, and attended with urgent straining while on the commode, the patient being obliged to rise ten times in an hour, and having very scanty evacuations from the bowels, which consist of slime and blood, without any feculent appearance; the pulse is rapid, often at the same time small and hard. An uneasy sensation above the pubis, pain in the bladder, and suppression of urine, frequently attend the worst cases of this sort; these symptoms arise from irritation extending to the lower portion of intestine, contiguous with the fundus and back of the bladder. Anxiety and restlessness increase early in the course of this form of the disease, which in its latter stages is often attended with more

pyrexia than the cases already described; and the patient dies miserably emaciated between the eighth and twelfth day. In some protracted cases, which are approaching a fatal termination, the tongue becomes covered with brown mucus, or it is dry, and the teeth loaded with sordes; delirium and low fever existing at the same time.

"The above symptoms depend on the different stages of inflammation, ulceration, or sloughing of the mucous membrane of the great intestines, and the consequences thereof. Dysentery may occur during various morbid states of the constitution, such as the scorbutic, or splenic cachexia; and may be attended by various coexistent diseases.

"On dissection we find the following appearances:

"1st. Inflammation, ulceration, and at times sloughing or mortification of the inner coats of the intestines; principally

affecting the cœcum, colon, and rectum.

"2d. Morbid vascularity of the mesocolon, mesentery, and omentum; adhesions of the omentum to the parts adjacent, and of contiguous portions of intestine to each other. The latter usually only happening when ulcers of the intestine have nearly perforated through the whole of its coats, and a breach that would admit of effusion of fæces into the abdominal cavity, is thus prevented.

"3d. Glands of the mesentery and mesocolon often enlarged, sometimes inflamed, and more rarely suppurating; the corresponding portion of intestine usually contains a deep and large ulcer.

"4th. The omentum is occasionally found adhering to these diseased glands, forming a band that may strangulate a portion of

intestine, and cause death.

"5th. The ulcerations within the great intestine, are generally most numerous, and most extensive at the cœcum, and first portion of colon: the valvula ileo-colica, has in some cases, been found quite destroyed by ulceration, and the lower end of ilium has formed an intus-susception into the cœcum; and becoming there strangulated has caused death. In a few more fortunate instances of intus-susception, when the lower portion of ilium descends into the cœcum, and forms a circumscribed tumor in that region, attended with suppression of stools, and rapid pulse; which prove the obstruction of the canal at that part: the strangulated portion sloughs off, after adhesive union of adjacent parts has taken place, so as to maintain the continuity of the canal; and then stools are again passed, together with masses of slough, or entire portions of intestinal tube, and the patient slowly recovers. In eight years I can mention five cases of this sort, two of which have recovered.

"6th. The right portion of the omentum is frequently found adhering to the cœcum, and this morbid attachment gives rise to symptoms that are liable to be mistaken for hepatic abscess. When these adhesions exist, we find that irritation or distention of cœcum, or pressure over that part, produces pain at the transverse portion of colon, which is drawn downwards by this attachment to the part

most diseased; the patient cannot stand erect, nor extend the body as he lies down, without feeling pain, which is referred to the region of the liver: the same pain is excited by raising the right arm above the head; there is occasionally cough, and sometimes a pain in the right shoulder, rendering the diagnosis very difficult."* (P. 4.)

In a few instances the size of the intestine is increased by thickening of its coats; in others, again, the whole of the great intestines are contracted in diameter. The three or four inches of ilium nearest the cæcum are generally affected with superficial ulcerations and roughness; but, with this exception, the small intestines are rarely diseased in true dysentery. In chronic cases, the cellular structure at the root of the mesentery and mesocolon is often found indurated to a certain degree, and quite void of fat. "If chronic pains in the loins and lower extremities ever depend on this morbid condition, there would be little hope of benefit to those pains, from the remedies commonly advised for rheumatism." (P. 13.)

Severe cases of acute dysentery, in plethoric patients, are to be treated by venesection, leeching, and the tepid bath.

"With this system of depletion, a dose of castor-oil is given immediately after the first bloodletting; and, when it has operated freely, the patient is made to take six grains of ipecacuanha powder, with four grains of extract of gentian, and five grains of pil. hydrarg., in three pills, which are repeated every night and morning; and twenty grains of powdered jalap, with forty grains of cream of tartar, are given daily at eleven o'clock in the forenoon. I rarely deviate from these remedies, except by occasionally using calomel in place of the blue pill; and that is not very often done. In some patients, who have recovered from the more acute symptoms for many days, and have become emaciated, with dryness of the skin, I have, after a few days, omitted the purgative of compound jalap, and ordered a drachm of sulphur, mixed with half an ounce of mucilage and one ounce of cinnamon water, to be taken in the morning early; giving the ipecacuanha, gentian, and blue pill, at four and nine P.M. In such cases the sulphur is a mild aperient: it has the property of acting on the skin, and, I believe, one of its effects in chronic dysentery is produced by its actual contact with the ulcerations of the intestines, inducing them to Injections of cold water have the most certain and quickest effect in removing the painful affection of the bladder, with suppression of urine, that attends bad cases. It has been many times

[&]quot;Staff Surgeon Marshall has stated, that the most frequent adhesions of the omentum are to the cœcum; and Mr. Annesley says, that the omentum is often adherent to the brim of the pelvis: but neither of these authors has adverted to the direct influence of those adhesions, in causing a pain at the epigastre, or at right portion of the colon and edge of right false ribs, which is liable to be mistaken for liver disease."

found an excellent remedy in cases where copious discharges of pure blood take place. A solution of ten grains of sugar of lead, in ten ounces of cold water, is often of great effect in the like circumstances; and, where tenesmus is severe at night, sixty drops of laudanum, with two ounces of cold water, given as an injection, has often remained in the rectum all night, and procured excellent rest." (P. 14.)

The use of mercurials is not to be pushed to salivation.

Tenesmus often depends on ulceration low down in the rectum, and may be relieved by acetate of lead, in the form of ointment. Blisters are rarely advisable in the commencement; and opium is very seldom useful. The diet should, of course, be extremely low. Slight cases may be cured by low diet, a daily dose of castor oil, and two or three nauseating doses of ipecacuanha, or antimonial wine, daily. An infusion of ipecacuanha and ginger, and a diet consisting solely of a teacupful of barley-water, three times a day, have often cured slight cases.

The following are our author's first two cases, or, as he calls them, by an uncommendable Gallicism, observations.

"Observation 1. Thomas Bullery, æt. thirty-eight, a stout man, of light complexion, arrived from England six weeks ago: he had been in India before, and has been now living on board ship. Was attacked with dysentery on the 18th October, 1829, and his complaints increased daily until the 25th, when he was landed in the evening, and sent to the General Hospital. The belly was then rather full and inelastic; pressure over the course of the colon caused pain, but there was very little pyrexia: he stated that his evacuations were very frequent and scanty, consisting mostly of blood, and that he was up to stool twenty-four times last night.—V.S. ad lb. jss. R. Calomel, gr. xii.; Extract. Hyoscyami, gr. iv. in two pills at bedtime.*

"October 26th. Blood not buffy. He has been up to stool very often, but voided nothing. He had a slight rigor in the night; there is no pyrexia now; pulse eighty; tongue clean at edges, with white mucus on its centre. The belly is rather full, doughy, and inelastic; pressure across the navel causes pain.—Apply twenty leeches to the belly immediately. Let him take

[•] Mr. Twining says, with great naiveté, "In the course of this work, the directions appear in English, under the Latin prescriptions; which is the custom followed here, in the hospital diaries, for the purpose of preventing mistakes in the administration of the medicines by the young apprentices; and I have not thought it important to make any alteration." (Pref. p. x.) We confess that we are among those who, in a case of this kind, would rather (to use parliamentary language,) that the qualification was elevated to the level of the trust, than the trust lowered to the level of the qualification.

Pulv. Jalap. comp. 3j. at seven in the morning. Tepid bath at

noon, and give Olei Ricini 3j. after the bath.

"Vespere. Had twelve free stools, with very little blood, and he is better.—R. Pil. Hydrarg., Extract. Colocynth. comp. aa gr. iv. at bedtime.

"Oct. 27th. He had only three stools in the night, and is better in every respect.—Pulv. Jalap. comp. 3j. immediately.

"Oct. 28th. Had five stools in the day: none at night.—Medicine repeated.

"Oct. 29th. Convalescent. No more medicine used. Dis-

charged well on the 2d November, 1829.

"Obs. 11. Henry Pritchard, æt. twenty-one, a middle-sized man, of dark complexion, recently arrived from England, was taken ill with dysentery on the 20th November, 1830, and became gradually worse every day, till he was sent to hospital on the evening of the 25th. He stated that he was passing much blood with his stools, which were attended with very distressing tenesmus. The belly was full and hard, face flushed, pulse ninety-two and full.—V.S. ad lb. jss. R. Calomel, Extr. Colocynth. comp. aa. 9ss., in pills at bedtime.

"November 26th. The blood drawn last night is buffy and cupped. He had eight stools in the night, consisting of blood and mucus, attended with dreadful tenesmus. The belly is hard and hot; the tongue moist, and loaded with brownish mucus. The fever and flushed face continue. Pulse ninety-six, and full.—V.S. ad lb. jss. immediately. R. Pulv. Jalap. comp. 3 j. at seven A.M. Apply twelve leeches to the belly at noon. R. Pulv. Ipec. gr. xii.; Extract. Gentian. gr. viij.; Pil. Hydrarg. gr. x. Misce et divide in pil. No. vj. Three pills to be taken at noon, and three

more at bedtime.

"Nov. 27th. Had twenty-four stools in the night, consisting of fæces mixed with slime and blood: he has suffered much from tenesmus and straining. His belly is hard and hot, and some pyrexia remains; but the pulse is eighty, and soft.—V.S. ad lb. j. immediately. Sixteen leeches to the belly at noon. Medicine repeated as yesterday. Laudanum, 3j. to be given in two ounces of cold water, as an enema, at bedtime.

"Nov. 28th. Blood florid, and not buffy: he had five stools in the day, consisting of blood and mucus; fourteen at night; and he is feverish.—Apply eight leeches to the belly. Medicine re-

peated as yesterday.

"Nov. 29th. Eight stools, (yellow fæces, and mucus without blood.) He feels easier; but the cheeks are flushed, the pulse seventy-six, weak, and soft. Some enlargement, with induration of the liver, is now perceptible.—Apply twelve leeches to the liver. Tepid bath two hours after the leeches. To take Pulv. Jalap. c. 3j. at ten o'clock. Three of such pills as were ordered on the 26th to be given at seven A.M., and repeated at noon and at eigh in the evening. Anodyne enema at bedtime, as on the 27th.

"Nov. 30th. Was frequently purged yesterday, but has had only five stools since the enema last night: the evacuations contain much mucus. He has still some pyrexia, and elastic tension of the belly.—Apply sixteen leeches to the epigastre immediately. Three pills, as on the 26th, to be taken at seven A.M. Pulv. Jalap. comp. 3j. at noon. R. Extract. Colocynth. comp., Pulv. Ipecac., Pulv. Hyoscyami, Pil. Hydrarg. aa gr. iij., in pills at bedtime.— Enema repeated at night.

"December 1st. Was freely purged by the jalap; had only two stools in the night. The liver is still hard.—Apply eight leeches to the region of the liver. R. Extract. Colocynth. comp. 9ss.; Pil. Hydrarg. gr. v., in pills at seven A.M. The anodyne

enema and night-pills repeated at bedtime, as yesterday.

"Dec. 2d. Has only had five stools, which are scanty and slimy. There is no pyrexia at present. The right rectus abdominis muscle is more tense than the left.—Apply six leeches over the liver. R. Extract. Colocynth. comp., Pil. Hydrarg., aa gr. v., to be taken in pills at seven o'clock. Tepid bath at noon. Pulv. Jalap. comp. 3j. after the bath. Two of the pills at bedtime, as prescribed on the 26th November.

"Dec. 3d.—Had four copious, dark, feculent stools.—Ordered to take two of the pills prescribed on the 26th November, morning

and night; and compound powder of jalap 3j. at noon.

"Dec. 4th. He had three natural loose stools last night, and his gums are sore. Belly still hard and tense, which I find is caused by his having clandestinely obtained an improper quantity of food; therefore an emetic is now ordered, and its repetition promised daily, if the belly should be tense.

"From this date he took one drachm of compound powder of jalap daily at noon, and the pills (such as prescribed on the 26th November,) night and morning, till the 10th December. After that, his bowels were kept free by Pil. Rhei c., which was given daily, till he was discharged on the 12th January, 1831." (P. 21.)

We must pass over the remainder of the chapter on Dysentery, though not without regret, and not without mentioning especially the observations on scorbutic dysentery, (in which calomel would be destructive,) and the section on "particular affections of the cæcum during dysentery." In a case belonging to this subdivision, a round earthy mass, larger than an olive-stone, was found in the centre of an abscess, which was outside and behind the cæcum, but not communicating with its cavity.

The second chapter (p. 135 to 269,) treats of Diseases of the Liver, and commences with an account of the post-mortem appearances, which is of the highest interest; but, lest this review should swell out into a volume, we must content ourselves with extracting a single passage, relating to abscess.

"Abscesses of the liver. These vary much in appearance; and their peculiarities seem in some instances, influenced by the existing diathesis of the constitution. At present, I will hardly venture to do more than enumerate the morbid conditions that have been observed."

"a. A large quantity of puriform matter in a cavity, the contiguous parts of the liver exhibiting not much appearance of disease. The contents of the abscess, are frequently a dark-brown, or reddish serum, and then the adjacent parts of the liver are softened and gorged with blood. The acute abscesses which form in the

course of fevers, acute dysentery, and in drunkards.

"b. In other cases, there is only a small quantity of matter, compared with the extent of the disorganization; a considerable portion of the disease consisting in a quantity of large, tough, white or grey sloughs, hanging from the sides of the cavity, and nearly filling it: the parts on dissection much resembling the advanced stage of a large carbuncle. This disease more frequently happens in scorbutic subjects than others.

"c. In a few cases, we find a circumscribed abscess, the size of an orange: the matter deeply seated, and contained in a cavity,

which is bounded by a thick coat of coagulable lymph.

"d. Numerous small abscesses, the size of a filbert, dispersed through the substance of the liver; the cavities of some, lined with a thin coat of coagulable lymph; others without any lining, appearing as if scooped out with a sharp instrument: the intervening parts of the liver soft, but not otherwise diseased. This morbid appearance is rare: it sometimes exists without much evident tumefaction of the liver. The subjects have been mostly delicate,

and of scrophulous constitution.

"On inspecting the bodies of persons who have died suddenly from accidents or otherwise, I have several times met with appearances in the liver, which were considered to be the incipient or preliminary stage of abscess. These were, distinct, circumscribed, ecchymosed spots, at the concave surface of the liver; and serous interstitial effusions into the structure of that organ, near its convex surface: the latter spots, if diffused and extensive, rendering the part very soft for a considerable space. These may be considered the early changes induced by acute disease, not very rapid in its progress; and had the patients not died suddenly from other causes, these effusions would have probably terminated in abscesses, if not treated in the most judicious manner, for a long time.

"In dissection of subjects, who died of Abscess of the Liver, I have twice found a small quantity of puriform matter in the right ventricle of the heart; and in both instances, was able to trace the same appearance with small filamentous coagula, quite into the veins of the liver. The internal membrane of the hepatic veins was inflamed, but I could not discover any communication between the abscess of the liver, and these vessels; and am therefore disposed to ascribe the formation of pus, to inflammation of the hepatic

veins. Both these patients were recent arrivals in India, not of very temperate habits, and their complaints began as common diarrhoea of severe description. On referring to their cases, the only difference observed between these and the usual course of Liver Abscess, was the more active pyrexia in the early part of the disease; and towards the conclusion unquenchable thirst, extreme anxiety, and frequent disposition to faint: but the patients never complained of palpitation, or any other symptom directly referred to the heart. In these cases, some degree of morbid heat of skin, continued to the last." (P. 138.)

A remarkably instructive case of acute hepatitis is narrated at p. 177 et seq. The patient was cured by leeching, purging, and starving; the last remedy being carried to an extent which does great credit to the resolution of the patient, as well as the clear-sightedness of his doctor. For a whole week "he was allowed a cup of tea night and morning, but no food, and no drink in large quantity: only a table-spoonful of water every half-hour, if thirsty." (P. 180.)

Mr. Twining informs us, that rigor has not occurred in the majority of cases of abscess of the liver which he has seen.

In one instance the abscess was successfully opened:

"The proportion of patients who recover, after the formation of an extensive Abscess of the Liver, in Bengal, is lamentably small. I have as yet seen only one case in which abscess of the liver was opened by an incision. In that case the opening was made near the epigastre; the patient recovered, and lived by no means a temperate life afterwards. On his death, which occurred many years after, from causes unconnected with liver affection: I opened the body, and found adhesions of the convex surface of the liver anteriorly, and an extensive thick fibrous structure, occupying a space at that part, of about three inches in extent, and nearly half an inch thick. The liver rather small, of lurid brownish red colour, slightly mottled internally; the gall-bladder small, and covered with a dense false membrane." (P. 200.)

The third chapter (p. 271 to 360,) treats of Diseases of the Spleen. The following are the post-mortem appearances, placed in the order of their frequency:

"A soft rounded enlargement of the spleen, the texture less firm than in the healthy state; and easily broken if the finger be pushed abruptly against it. In some cases the part is so much softened, that it resembles a great clot of blood, wrapped in a thin membrane: this varies in colour, from black, to brown or blue; and in the extreme degree of softening, when we attempt to lift the tumid spleen, the fingers are thrust through the membrane, and the organ breaks down in the hands, becoming a putrid gore. This soft globular enlargement, from vascular engorgement of the spleen; most commonly attends, or follows, the severe remittent fever of the

rains and cold season: when that disease attacks weak and unhealthy

young persons.

"2. Oblong enlargement of the spleen; the organ being more firm in texture than in its natural state, its edge thin and notched: the colour being sometimes a pale brown, though more generally a dusky red. This morbid change of structure, would appear to be the result of more slow and gradual degeneration, which in its earlier stages has probably been attended with some inflammatory condition of the internal structure of the spleen: in such cases we also find evidence of superficial inflammation, attended with adhesions to adjacent parts, more frequently than in the rounded enlargement from simple vascular engorgement.

"3. Opaque patches of various sizes, some of these extend over half the convex surface of the spleen, and are nearly one eighth of an inch thick; they may be deemed the result of albuminous depo-

sitions during superficial inflammation.

"4. Adhesions of the peritoneal coat of the spleen to contiguous viscera; which adhesions are by no means a general result of tumid spleen in Bengal.

"5. In a few old cases, we find a more indurated friable spleen; that breaks when handled without much force, like a piece of old

moist cheese.

- "6. Still more rare, is the firmer induration intersected with septa of condensed fibrous structure; to which we give the name of scirrhus.
- "7. Tubercles of various sizes, generally small, and of grey, or brown colour.
 - "8. An organized coagulum in the splenic vein.

"9. Encysted tumours.

"10. Abscess of the spleen.

"The four last-mentioned morbid appearances, are exceedingly rare in Bengal." (P. 280.)

The two great points in the treatment are to avoid the use of mercury, and to give iron, with bitters and purgatives.

"My usual formula for cases where there is not much pyrexia is R. Pulv. Jalap., Pulv. Rhei, Pulv. Calumbæ, Pulv. Zingiberis, Potassæ Supertartratis, aa 3j.

Ferri Sulphatis, 9ss.

Tinct. Sennæ, 3iv.

Aq. Menthæ Sativæ, 3x. Misce.

This prescription is called the *Spleen mixture*. The dose is one ounce and a half for an adult, at six A.M., and repeated at eleven A.M. daily. For children, the doses are regulated so as to produce not less than three, and not more than four stools daily." (P. 283.)

Mr. Twining observes, that the disorders most closely allied to the splenic cachexiæ are chlorosis, scorbutus, and some species of anæmia. If this be so, and we see no reason to dissent from his opinion, it will give a good theoretical foundation for the practical fact, that mercurial remedies are inexpedient, and even dangerous, in these splenic maladies.

This chapter on the Spleen is by no means obnoxious to the fault with which some parts of this work are chargeable,—of omitting the opinions of other writers: on the contrary, they are often referred to, and impartially balanced.

The fourth chapter is on Cholera, (page 361 to 556.)

The following extract from the account of the varieties of cholera, with the author's method of treating them, will gratify our readers.

" If the diseases which are acknowledged to be Cholera, were so ranged on a scale as to place those cases which have most affinity, together; and those most dissimilar, at a distance: we should find one end of this scale occupied by diseases in which the actions of the constitution are distinctly febrile, and in many of them the evidence of local inflammation is strong and unequivocal, as in the most intense examples of gastro-enteritis. At the other extreme of this scale, we should find the prevailing characters of the disease, as already stated, consisting in coldness, depression of vital actions, and extreme venous congestion; with tendency to sudden death, not preceded by much active disease. Between these two extremes, every possible variety exists: the disease with early collapse and coldness, generally combines an intense degree of congestion of blood in internal organs, with some remote tendency to inflammation of the intestines, and sometimes (though rarely in Bengal,) of the brain: while the febrile cases, and those which are marked by distinct evidence of local inflammation; are by no means void of congestion, and they frequently pass suddenly into the low state, with coldness, and the most awful prostration of vital power. Our watchful attention to the course of the disease is urgently demanded, on account of this occasional tendency to sudden change; lest we be misled, and induced to use depletion, by V. S. or other means, at a time when such treatment may be injurious. It will be evident that the treatment of cholera must be varied according to the nature of the disease.

"In the febrile and inflammatory stages of the disease, attended with violent and painful spasms, warmth of surface, and free circulation, our chief dependence must be on V.S., leeches, and purgatives of calomel or blue pill, with cathartic extract, alternated with castor-oil. In a few of these febrile cases, we may venture on jalap and scammony, at more remote periods of the disease. The earlier a case of cholera of this description is bled, the more certain and effectual is the relief which is obtained. While those patients who come under treatment at a late period of the disease, even though distinctly marked inflammatory symptoms be present, require great caution in the employment of depletion; and still they are almost certain to die without antiphlogistic treatment. Opium

is admissible for one or two doses, in small quantity, at the onset of these febrile cases, when watery evacuations prevail; but, except for the purpose of allaying the dreadful commotion of the system, and to arrest profuse purging, we derive little benefit from this remedy. Nothing relieves the spasms of the early stage of febrile cholera so

effectually as the lancet.

"There is a more remote stage of the disease, in which local inflammations take place, appearing sometimes to be excited by premature return to a diet of animal food, and in other cases to arise without any evident cause: we are obliged then to use the lancet, and to purge the patient freely, as in an ordinary inflammatory fever. At the same time, a word of caution is requisite, lest the inexperienced practitioner should mistake for fever or inflammation the transient and ineffectual reaction which often occurs just before death, attended with morbid heat of forehead and chest, while the patient is torpid, blue, and restless; as vain attempts have been made to cure these cases by bleeding. The least that can be said of such treatment is to acknowledge its total inutility.

"Where the evacuations have been profuse, it is always advisable to give a small quantity of thin sago, or arrow-root, as soon as the stomach will retain it; and the employment of a small quantity of food of this sort need not interfere with the general antiphlogis-

tic plan above stated.

"The majority of these febrile cases can generally be saved, if seen early, and treated with careful discrimination and perseverance." (P. 402.)

Chapter fifth treats of Fevers, (from page 557 to the end of the volume.) Like other spendthrifts, reduced to the most pinching economy, we cannot afford even the smallest extract from this division of Mr. Twining's work, and must be satisfied with giving a slight summary of some few of his opinions.

Intermittent Fever. Our author treats this disease by purging, bleeding in the cold stage, and quinine. Bleeding has always proved safe, and generally more successful than any other remedy: it must be performed at the commencement of the rigor, and the quantity of blood taken should not be more than from twelve to twenty ounces in a European,

and from four to ten in a Bengalee.

Continued Fever. Bleeding, purging, and total abstinence from food, are our author's remedies in this disease. A European patient, of unbroken constitution, may be bled to lb. jss. or lb. ij.; after which, twelve grains of calomel, and twelve of cathartic extract, are to be administered; and this, again, is to be followed by a black draught six hours afterwards. The superlative frugality of the diet rises many

degrees above the diæta parcissima of this part of the world. It consists of a cup of tea night and morning, and a wine-glassful of toast-water every hour. We observe that, in two cases which terminated in death, (the 135th and 136th,) hemorrhage had taken place in the brain, in spite of the most enormous bleedings. In the 135th case, 104 ounces of blood were taken by venesection in four days, besides the repeated application of leeches: in the 136th case, the amount taken by venesection was sixty-four ounces, and sixty-eight leeches were applied. Ought the bleedings to have been still more copious; or do these cases support the theory of those who maintain that bleeding does not lessen the quantity of blood in the brain?

Remittent Fevers. The remittent fever of the Bengal rainy season is among the most formidable diseases of India. It sometimes happens that, after two or three slight paroxysms, a change for the worse suddenly takes place, without any evident cause, and death follows within an hour. The treatment consists chiefly of two copious bleedings, a couple of scruple-doses of calomel, and leeching; and the use of quinine at a later stage. The detraction of blood, by the lancet or by leeches, must take place during the paroxysm: when this is over, the loss of blood is highly dangerous.

The insidious Congestive Fever of the Cold Season seems to differ from ordinary fever chiefly, if not solely, in the slowness with which the symptoms come on: a deceptive slowness, which induces the patient to trust to inefficient or pernicious domestic remedies. The treatment is the same in kind as in common continued fever, but less vigorous in degree, bearing a due proportion to the comparative mildness of the symptoms.

Nakra. This is a singular febrile affection, attended with swelling and inflammation of the Schneiderian membrane. It is called by the Bengalese Nakra, or Nasa, which literally means the nose disease. It never terminates in suppuration or ulceration, or in any chronic disease resembling ozæna: it is seldom, if ever, fatal, and never attacks Europeans.

We again recommend this work to the notice even of those who are not destined to practise in India. Diseases are most easily studied when of intense severity, and the treatment which they then require may be adapted to the milder forms. The entire abstinence enjoined and observed by the Bengalese in diseases attended with fever may afford a valuable hint for the management of British sick rooms.

Formulaire pour la Préparation et l'Emploi de plusieurs Nouveaux Médicaments; tels que la Morphine, la Codéine, l'Acide Prussique, la Strychnine, la Vératrine, l'Ether Hydrocyanique, le Sulfate de Quinine, la Cinchonine, l'Emétine, la Salicine, le Brôme, l'Iode, l'Iodure de Mercure, le Cyanure de Potassium, l'Huile de Croton Tiglium, les Sels d'or, les Sels de Platine, le Chlore, les Chlorures de Chaux et de Soude, les Bi-carbonates Alcalins, la Grenadine, le Phosphore, l'Acide Lactique, l'Huile Volatile de Moutarde, &c. &c. Par F. Magendie. Huitième édition, revue et augmentée. A Paris, Janvier, 1835.

Formulary for the Preparation and Employment of several new Medicines; such as Morphia, Codeine, &c. By F. Magendie. Paris, 1835. 12mo. pp. 438.

We had originally intended, in reviewing the useful manual before us, to confine ourselves to the matter added in this edition; but we have been induced to depart from this our first design, partly by the fact of these additions being but few, and partly by the consideration that, as only a small proportion of our readers can be supposed to possess the seventh edition of the "Formulaire," it may be interesting to the majority, if we go farther back in our analysis. Omitting therefore, with one or two exceptions, everything contained in the first four editions, we have considered all the rest as fair booty, and accordingly proceed to present our readers with the spolia opima of our collation.

Resin of the Nux Vomica. A tincture is prepared of this substance, containing four grains in the ounce. It may not only be employed internally, but in frictions on atrophied or paralysed parts. This method is much used in Italy, says M. Magendie; and he has employed it a good deal himself of late, but thinks it useful to add ammonia, as in the following

formula:

Take of Tincture of Nux Vomica, an ounce; Concentrated Ammonia, two drachms.

It was found beneficial in the treatment of the cholera at Paris. Salts of Strychnine. Strychnine, by being combined with acids, becomes more soluble, and more active. Thus, if the patient drinks lemonade, the strychnine which he takes will be more powerful. The subcarbonate alone is scarcely soluble. The author has found marked effects produced by doses of one twelfth of a grain of the sulphate in a case of paraplegia, and has lately obtained favourable results from the iodate, in several cases of paralysis supposed to be incurable.

Morphia, and its Salts. It appears from the researches of Séguin, Derosne, Sertuerner, Robiquet, Robinet, Pelletier, and

Couerbe, that opium is composed of, 1, a fixed oil; 2, Caoutchouc; 3, Gum; 4, Fecula; 5, Resin; 6, Lignin; 7, Morphia; 8, Narcotine; 9, Narceine; 10, Meconine; 11, Codeine; 12, Meconic acid; 13, Another brown acid. But, according to Robiquet's late researches, there is neither codeic acid nor codeate of morphia in opium: what had been taken for them being either an acid salt, or hydrochlorate of morphia. Morphia may be obtained directly from the capsules of the indigenous poppy, and does not differ from that which is procured from opium, either in chemical or medical qualities.

M. Blondeau, in a communication to the Royal Academy of Medicine, affirms that, by fermenting an aqueous solution of opium by means of a little yeast, a viscous colouring matter is destroyed, which sets the morphia free, and furnishes it pure, with greater facility, and in greater quantity, than by

any other known method.

304

M. Magendie prefers the sulphate to the acetate of morphia; partly because it is difficult to make a perfectly neuter acetate, and partly because the acetate, when placed in contact with water, divides into two parts, a soluble superacetate, and an insoluble subacetate. The sulphate of morphia may be obtained by dissolving morphia in diluted sulphuric acid, and allowing crystals to form by evaporation. The crystals resemble those of sulphate of quinine, but may easily be distinguished by their reddening, when treated with pure nitric acid.

M. Pelletier also prefers the sulphate to the acetate of morphia, because the former can always be obtained pure, while the latter is often mixed with narcotine; the reason being that narcotine is more soluble in alcohol than morphia. The acetate, too, is partly decomposed by the drying which it necessarily undergoes in order that it may be kept; but the sulphate being obtained by crystallization, no sulphate is ever formed.

The sulphate of morphia is soluble in twice its weight of distilled water.

Pure Morphia is less soluble than its salts, and less powerful in its effects on the animal economy. This is by no means a reason for neglecting it: on the contrary, it is sometimes very advantageous, precisely on account of its comparative weakness.

M. Magendie gives morphia most frequently in the form of a pill, and in the dose of a quarter or half a grain, with the view of procuring sleep, while the patient is suffering from chronic and painful diseases. He believes, (but states his belief with some hesitation,) that the sleep procured in this manner is more durable, and more complete, that when it is owing to the salts of morphia. The Salts of Morphia. Magendie seems generally to begin with the syrup of the acetate of morphia, and, when the patients become accustomed to its action, he then uses the syrup of the sulphate. His solution of the acetate contains sixteen grains to an ounce of distilled water, with three or four drops of acetic acid, and a drachm of alcohol. The dose is from six

to twenty-four drops.

Both the acetate and the sulphate of morphia may be given in quantities varying from a quarter of a grain to two or three grains within twenty-four hours; and the author has even administered them in the dose of four grains daily, without inconvenience. Yet it appears, from another passage, that M. Magendie believes a quarter of a grain of morphia to be equivalent to a grain of the extract of opium; for, in speaking of the extract of opium deprived of morphia, he says "On peut donner cet extrait par grains; il m'a paru que quatre grains n'équivalent point, pour l'activité, à un grain d'extrait aqueux ordinaire, et à 4 de grain de morphine." (P. 66.) When the dose is pushed too far, the salts of morphia occasion nausea or even vomiting.

Solution of the Citrate of Morphia. The black drops, which have long been employed, consist of a vegetable acid (usually the citric or acetic,) combined with opium. The preparation called citrate of morphia, by Dr. Porter, of Bristol, contains, in addition, narcotine and all the other crystallizable components of opium. Magendie, therefore, employs a solution of sixteen grains of morphia and eight of citric acid in an ounce of distilled water, coloured with two drachms of tincture of cochineal. The citrate of morphia is incompatible with lime water, solution of ammonia, and other alkaline substances.

Extract of Opium deprived of Morphia. The process of obtaining morphia from opium never deprives it entirely of this alkali, and the remaining extract may therefore be used instead of common opium, but in larger doses, as above stated.

New Principles discovered in Opium. These are three in number, narceine, meconine, and codeine: they were all disco-

vered in 1832.

Narceine and meconine do not appear to have any effect upon the animal economy, and at present, therefore, can be considered only as chemical curiosities; though it must be confessed that the experiments cited by our author are neither numerous nor varied enough to settle the point.

Narceine is white and inodorous; its crystals are long and acicular; and it has a slightly bitter, and almost metallic, taste. It dissolves in 230 parts of boiling water, and 375 parts of cold water. It melts at 92° of the centigrade thermometer (197 % of Fahr.) and is decomposed by a higher

306

temperature. The principal characters of narceine are those which are developed by acids. When concentrated, they decompose it entirely, especially when aided by heat. When diluted with half their weight of water, they produce remarkable changes of colour. Thus, at the instant the two substances come in contact, a beautiful blue is produced; and, if the water is absorbed by means of magnesia, or the chloride of lime, a rose colour is obtained. Hence M. Couerbe calls it the vegetable chameleon.

Codeine was discovered by M. Robiquet. He found that the muriate of morphia, prepared by Gregory's method, did not afford the quantity of morphia which it ought to have done. He suspected that it was impure, and found that its impurity was occasioned by a new substance, crystallizing in beautiful prisms, soluble in water, ether, and alcohol, and possessing very active alkaline properties. This was codeine.

This substance is insoluble in alkaline solutions; it combines with acids, and saturates them, forming salts which are precipitated by nutgalls. Moreover, nitric acid does not redden it, and the chloride of iron does not take any particular colour

from this substance.

A grain of codeine, injected into the jugular vein of a middle-sized dog, caused profound sleep; but the animal recovered. A grain of the hydrochlorate of codeine, used in the

same way, caused death.

M. Magendie has given codeine to a considerable number of patients at the Hôtel-Dieu; and he finds that a grain, administered at once or at twice, is sufficient in certain cases to produce sleep, which in general is calm and undisturbed, and is not followed the next day by drowsiness or a sense of weight in the head; effects frequently produced by morphia. A grain of codeine seems to be equivalent to half a grain of pure morphia. Two grains of codeine have more than once excited nausea, and even vomiting. The hydrochlorate is much stronger. Two grains generally cause not only sleep, but vertigo, nausea, and even vomiting. But, on the other hand, when this dose was given, M. Magendie has seen facial and sciatic neuralgiæ, which had resisted every other remedy, disappear as if by enchantment.

Many patients too, who had exhausted the narcotic action of morphia and its salts, have experienced the most satisfactory effects from codeine, taken alternately with the nitrate

or the hydrochlorate of this vegetable base.

The Muriate of Morphia and Codeine, or Gregory's salt, partaking, as it does, of the virtues of morphia and codeine, may occasionally be substituted for either of them.

Emetine. Under this head our author mentions some ex-

periments made by M. Chomel upon Violine, which is nothing more than emetine procured from the root of the violet. He gave from six to twelve grains in three doses, to nine patients. In six of them vomiting was produced; two only experienced a slight purging. One of these persons, who was suffering from diarrhæa, was cured by the third dose; and thus, in these two cases, violine produced neither vomiting nor purging. It was administered pure to two other patients, in the dose of three grains and a half, taken at three times. In one case it caused no vomiting, but only two liquid stools. The second patient had one fit of vomiting; and a third dose of

two grains produced neither vomiting nor purging.

Veratrine. Four substances have been discovered in the seed of the Veratrum Sabadilla; namely, veratrine, sabadilline, a gum resin, and veratrin. M. Magendie has several times treated tic doloureux of the face with success, by sprinkling small blisters applied over the course of the affected nerves with one or two grains of veratrine, and repeating this dose every four or five days. He employs the same remedy, and with the same advantage in cases of paralysis of the face. The "pommade de veratrine" which he gives contains only four grains of this potent alkaloid in the ounce, and not twenty or forty, as was recommended by a certain author, who shall be nameless. It may be used externally in cases of chronic rheumatism, anasarca, and gout. When it is desirable to administer veratrine internally, the following formulæ will be useful:

Take of Veratrine, four grains; Alcohol, an ounce.

The dose is from ten to twenty-five drops in any suitable vehicle.

Take of Sulphate of Veratrine, one grain; Distilled water, two ounces.

The dose is a teaspoonful in an ounce or two of sugared water.

Veratrine uncombined is insoluble in water.

Veratrine (the discovery of which is due to M. Couerbe,) has not yet been used. M. Magendie has tried some experiments with sabadilline upon animals and men, but sees no reason as yet to prefer it to veratrine, under any circumstances.

Prussic Acid. M. Magendie narrates a lamentable occurrence which took place some years since in a Parisian Hospital. Our author's hydrocyanic syrup is the one commonly used; but, in the hospital, the hydrocyanic syrup of the codex is employed, which is very much stronger. Seven epileptic patients took, at the same time, about two drachms and six grains of the hydrocyanic syrup of the codex, and in three quarters of an hour they were no more. The moral which

our author draws from this frightful occurrence is that every-body ought to use his syrup; whereas we would rather suggest, that every French doctor ought to be intimately acquainted with the Codex. The physician who has but a slight knowledge of the pharmacopæia of the country in which he lives, will often find that his prescriptions are ridiculously feeble, and sometimes that they are destructively active; and will soon confess that the unpraised but necessary accomplishment which he wants, if not a branch of medical science in name, is one in reality.

Cyanuret of Potassium. This remedy has been sometimes substituted for prussic acid, on account of the facility with which the latter is decomposed. The cyanuret is dissolved in eight times its weight of distilled water, being thus transformed into hydrocyanate of potash. When dissolved in this proportion it may be called medicinal hydrocyanate of potash. The fol-

lowing formulæ contain these remedies.

Pectoral Mixture.

Take of Medicinal Hydrocyanate of Potash, a drachm; Distilled water, a pound;

Lump sugar, an ounce and a half. The dose is a tablespoonful morning and evening.

Pectoral Potion.

Infusion of Ground Ivy, two ounces; Medicinal Hydrocyanate of Potash, fifteen drops; Syrup of Mallow, an ounce.

The dose is a teaspoonful every three hours.

Potion containing the Cyanuret of Potassium.

Lettuce water, two ounces;

Cyanuret of Potassium, from half a grain to two grains; Syrup of Marsh Mallow, an ounce;

The dose is a tablespoonful every two hours.

Syrup of Hydrocyanate of Potash.

Simple syrup, a pound;

Medicinal Hydrocyanate of Potash, a drachm.

This is employed, instead of the ordinary syrups, as an addition

to pectoral potions.

Hydrocyanic Ether. A patient, suffering from convulsive cough, took six drops of this remedy daily in a gum mixture. The effects were satisfactory, and no complaint was made of the penetrating and disagreeable smell of the ether. But, although several other patients who took this medicine at the Hôtel-Dieu were benefited by its use, M. Magendie was obliged to discontinue its employment, on account of the insurmountable disgust caused by the smell of the mixture.

Iodine and Hydriodate of Potass. M. Magendie has not

yet seen any instances of the bad effects produced by over doses of iodine, but cites many witnessed by other physicians. The majority are certainly in the right in this instance, and we believe that our author stands alone in believing in the "innocuité de cette nouvelle substance." Iodine is a valuable, a most valuable remedy, but its effects must be watched with scrupulous caution. Its power in curing syphilitic eruptions is singularly great: for this purpose we give half a grain or a grain a day, dissolved in water, with a few grains of the hydriodate of potash. Our author prefers the hydriodate of potash alone dissolved in distilled water, in the proportion of thirty-six grains to an ounce; and he has given one, two, and even three, ounces of this solution in a day, without any unpleasant consequences.

Scorbutic swellings of the gums have been cured in a few days by half a drachm of this solution, taken daily. In these cases it probably acted, as it does in goitre, by contracting the ultimate ramifications of the vascular system. It is with the same view that our author employs it in hypertrophy of the ventricles of the heart. This method, however, was not successful at the Salpétrière, where the patients are old; but has been more effective in young persons at the Hôtel-Dieu, and in private practice. When the hypertrophy is accompanied, as it often is, by acceleration of the movements of the heart, M. Magendie adds digitalis, in the following manner:

Atrophic Solution.

Distilled lettuce water, eight ounces;
—— orange flower water, one drachm;
Ioduret of Potash, four drachms;
Tincture of Digitalis, one or two drachms;
Syrup of Mallow, an ounce and a half.

The dose is half an ounce, morning and evening, in a little water.

The following formulæ are extremely useful in chronic rheumatism and old syphilitic affections.

Ioduretted Sarsaparilla.

Decoction of Sarsaparilla, two pounds; Ioduret of Potash, a drachm; Syrup of Orange Peel, two ounces; to be taken daily, by a glassful at a time.

Ioduretted Taraxacum.

Decoction of Taraxacum, two pounds; Ioduret of Potassium, half a drachm; Syrup of Mint, two ounces. To be taken daily, by a glassful at a time "I believe that I shall be useful to my brethren," says M. Magendie, "by pointing out to them a good way of curing scrofulous ophthalmia in a short time; as this is a disease which the majority of therapeutic agents fail in combating, even the most active ones, such as blisters, and a seton in the back of the neck." (P. 241.)

Ioduretted Collyrium.

Rose water, six ounces; Ioduret of potassium, twenty-four grains; Iodine, one or two grains.

To be used four times a day.

He has rarely seen scrofulous ophthalmia, even when complicated with ulceration of the conjunction and the cornea, resist this remedy for more than a month; of course, it is to be combined with appropriate internal remedies and regimen.

He sometimes adds morphia to the solution.

The Iodate of Strychnine is one of the most active salts known; a grain is sufficient to kill a large dog, with symptoms of tetanus.

M. Magendie has given it to several patients with a success which far surpassed his hopes. They were suffering from paraplegia, of long standing, and, having exhausted all known remedies, were reputed incurable. He has always administered it in pills, each containing an eighth of a grain; beginning with one every morning and evening, and increasing the dose until eight were taken in twenty-four hours. But in this, as in all the preparations of strychnine, the greatest circumspection is necessary.

Induret of Sulphur. An ointment, prepared with five parts of this substance to ninety-six parts of axunge, has been used for several years by M. Biett, in some cases of tuberculous affections of the skin.

Bromine. The effects of this remedy resemble those of iodine. M. Magendie gives the preparations of the former when iodine does not seem sufficiently effective, or when patients have become accustomed to its action. He uses it in scrofula, in amenorrhæa, and in hypertrophy of the ventricles. The following are his formulæ.

Potion containing the Hydrobromate of Potash.

Distilled Lettuce Water, three ounces;
Hydrobromate of Potash, twelve grains;
Syrup of Mallow, an ounce.

To be taken in the course of twenty-four hours, by a table-spoonful at a time.

Pills of Bromuret of Iron.

Powdered Bromuret of Iron, twelve grains; Conserve of Roses, eighteen grains; Gum acacia, twelve grains;

To make twenty pills; two to be taken every morning and evening.

Bromine Ointment.

Axunge, an ounce;
Hydrobromate of Potash, or of Soda, thirty-four grains.
Half a drachm, or a drachm, is to be rubbed upon scrofulous swellings.

Ointment of Bromuretted Hydrobromate of Potash.

Pure axunge, an ounce: Hydrobromate of potash, twenty-four grains; Liquid bromine; from six to twelve grains.*

To be used in frictions.

Mannite. This is one of the substances first added in the present edition. It is obtained in the following manner: The manna of commerce, known by the name of manna in the tear, is treated with boiling alcohol; then filtered, and allowed to crystallize; the mannite is precipitated in small needles, beautifully white. Mannite has the purgative property of manna, without its nauseous smell. The dose for children is two drachms: half an ounce is too laxative.

Solanine. This alkali was discovered by M. Desfosses of Besançon in the Solanum nigrum and the Solanum Dulcamara; but other people, though they have repeated the experiments, have not found the alkali. Hence our author thinks it essential "que M. Desfosses voulût bien répéter ses expériences, afin de constater de nouveau le fait qu'il a avancé, ou bien d'indiquer à quelle circonstance il tient qu' à Paris on n'a

pu obtenir de solanine." (P. 299.)

Thridace. This word is derived from θριδαξ, a lettuce, and is equivalent to Lactucarium, or Extractum Lactucæ. Under this head our author mentions that MM. Caventou and Boulay were not able to find any especial principle in the extract of lettuce that resembled morphia. (P. 344.) Dr. A. T. Thomson, on the other hand, tells us that a solution of lactucarium, when treated in the same manner as opium, discovers the presence of Morphia. (Dispensatory, 4th Edit., p. 382.)

The Salts of Gold. According to M. Chrestien (Méthode

The original has gros, (p. 261,) but we have not followed it; as it is evidently a misprint for grains.

iatraleptique, 2d Edit., p. 398 and 399.) "The muriate of gold is infinitely more active than corrosive sublimate, but is less irritating to the gums: when administered in the dose of the tenth of a grain daily, it caused considerable fever in one case." M. Chrestien remarks, that the agitation of the pulse, that is to say, the frequency of the pulsations and the largeness of the beat (développement de l'artère,) always occurs when his method is employed, (i. e. when the salt of gold is rubbed in,) and particularly when the muriate is used.

These preparations are chiefly employed in syphilis: the dose of the muriate of gold and soda is from a fourteenth to an eighth of a grain daily; it is mixed with the powder of

lycopodium, and rubbed upon the tongue and gums.

The following pills are used by M. Chrestien in scrofula, beginning with one, and increasing the dose to seven or eight a day.

Pills of the Oxide of Gold.

Take of Extract of the Bark of the Root of the Daphne Gnidium, two drachms;

Oxide of Gold, prepared with Potash, six grains.

To make sixty pills.

One grain of the muriate of gold and soda may be used

instead of the six grains of oxide.

Dr. Niel, who has written on the employment of the preparations of gold, advises a particular method of using them, when the state of the tongue, or of the inside of the mouth, does not allow frictions to be applied to these parts. His method is as follows:

The cutis is to be laid bare on one side of the neck by a small blister, and the part is to be dressed morning and evening with a mixture composed of a grain of axunge and a grain of gold, divided by mercury; at the same time, the oxide of gold is to be given in the form of a pill, and in the dose of a grain daily. At the end of a week, the doses of divided gold and of the oxide are each augmented by half a grain. At the end of a fortnight, as the sore begins to heal, it is stimulated with blister-ointment, and instead of the divided gold, the tenth part of a grain of the muriate of gold and soda is substituted, with a little lard. The application of this ointment causes itching, but little irritation, and the quantity of muriate used in dressing may be successively carried to an eighth and even a sixth of a grain. During the whole period of the external treatment, the internal use of the oxide of gold is continued; and this treatment is to be continued for some time after the disappearance of all the syphilitic symptoms.

The second case related by M. Niel relates to a person in whom the use of the muriate of gold and soda, in the dose of the tenth of a grain rubbed upon the tongue, caused such violent irritation, that it was necessary to substitute some other manner of employing the preparations of gold. Therefore, after having applied a slip of blistering plaster upon each side of the neck, the sores were dressed, first of all with a slight layer of the following mixture:

Take of Gold divided by means of mercury, a drachm; Axunge, an ounce.

When the sores were beginning to dry up, this ointment, with the oxide, gave way to one made with the muriate, in the following proportions:

Take of Muriate of Gold and Soda, ten grains; Axunge, half an ounce.

The employment of these remedies was continued for four

months, and the cure was perfect.

Dr. Simoneau, a physician of Florensac, having applied a seton to the back of the neck of a patient, who had serious ulcerations in his mouth, hit upon the happy idea of dressing the sore morning and evening with the muriate of gold, mingled with a little fat. This mode of treatment, which is analogous to the one employed by M. Niel, was perfectly successful.

The salts of Platinum are prepared in the same way as those of gold. M. Cullerier has tried the hydrochlorate of platinum and soda, and its effects do not differ from those of

the hydrochlorate of gold and soda.

Lactic acid. This is one of the substances added in the present edition. The existence of lactic acid was long doubtful: though acknowledged by several distinguished chemists it was denied by others not less celebrated, who believed the lactic and acetic acids to be identical. This question is now decided in the affirmative, to the great advantage of the rapeutics; as it appears very probable to our author that this acid will become a useful medicine.

Method of obtaining Lactic acid. It is extracted either from milk, or from the juice of beet-root. If the latter is to be used it is left to itself in a vessel of which the temperature must always be kept between 77° and 85° of Fahrenheit. In a few days, a tumultuous movement, called the viscous fermentation, takes place in the whole mass, and hydrogen gas, mingled with carburetted hydrogen gas, is disengaged in great abundance. When the liquid has regained its former fluidity,

and the fermentation is over, which is generally the case in about two months, it is to be evaporated to the consistence of a syrup; the whole mass is then traversed by a number of crystals of mannite, which, after being washed with a small quantity of cold water, and then pressed, are perfectly pure; the mass contains, moreover, a sugar, which presents all the properties of grape sugar. The product of evaporation is treated with alcohol, which dissolves the lactic acid, and precipitates a number of substances, which have not yet been examined; the alcohol extract is mixed with water, which leaves a fresh deposit; and the liquor is then saturated with carbonate of zinc, by which a more abundant precipitate is caused than either of the others. After concentration, the lactate of zinc crystallizes; it is collected, and heated with water, to which is added animal charcoal, previously washed with hydrochloric acid; it is filtered while boiling, and the lactate of zinc separates in perfectly white crystals; these are again washed with boiling alcohol, in which they are insoluble. They are then successively treated with barytes and sulphuric acid, and the lactic acid thus obtained is concentrated in vacuo. Lastly, by shaking it with sulphuric æther, which dissolves it, some traces of flaky matter are separated. (Annales de Chimie et de Physique, Avril, 1833.)

A large quantity of milk, suffered to ferment, and treated in the same manner, also furnishes lactic acid. M. Corriol has recognised its presence in the aqueous infusion of nux

vomica.

Physical and Chemical Properties of Lactic Acid. When concentrated in vacuo till it ceases to lose water, lactic acid is a colourless liquid of the consistence of syrup, and whose density, at the temperature of $68\frac{1}{2}$ ° of Fahrenheit, is 1,215. It is inodorous; its taste is exceedingly acid, and comparable to that of the most powerful vegetable acids; when exposed to the atmosphere, it attracts moisture from it: water and alcohol dissolve it in any proportion.

One of its most remarkable properties, and one which the physician is especially concerned in knowing, is the facility with which it dissolves phosphate of lime, particularly that of

the bones.

Method of using Lactic Acid. As lactic acid is an agent in the solution of food in the stomach, M. Magendie thought that it might be advantageously employed in cases of dyspepsia, or of simple debility of the digestive organs, and has found its effects very satisfactory. He gives it in the form of lemonade or lozenges, as in the following formulæ.

Lactic Lemonade.

Take of Liquid Lactic Acid, from one to four drachms; Common Water, a pint; Simple Syrup, two ounces.

Lactic acid lozenges.

Take of Pure Lactic Acid, two drachms;
Powdered sugar, an ounce;
Gum Tragacanth, q. s.
Volatile Oil of Vanilla, four drops.

To be made into lozenges of half a drachm each, which are to be kept in a well-stopped vessel. Six of these lozenges may be taken within twenty-four hours, without inconvenience.

The facility with which lactic acid dissolves the phosphate of lime makes it reasonable to try this acid in cases of white gravel, or phosphate of lime. M. Magendie has not yet had an opportunity of doing this, but intends it. He has also begun a series of clinical experiments with the lactates of soda, of potash, &c., but has not yet lighted upon anything worth publishing. He recommends these salts, however, to the attention of physicians.

Volatile Oil of Black Mustard Seeds. This oil, when diluted with an equal weight of alcohol, of the specific gravity of 0,828, is an excellent rubefacient, and its action is almost instantaneous. If a part is rubbed with it for a few minutes, phlyctenæ are soon formed, resembling those created by blisters.

It is needless to give our opinion of the work before us; its reputation is European, and the physician who has succeeded in diffusing a knowledge of the new remedies over the civilized world, does not require our feeble praise. It would be easy, of course, to remark that some of the medicines are of doubtful merit, and that the hydrocyanic ether, which only one patient could take, and the solanine, which only one chemist could make, might, with a few others, be omitted. But, in the matter of remedies, the old rule holds good, præstat copiâ quam penuriâ premi; and we would admit on slighter grounds than we would expel. The only important omission that we have observed, and it is an unaccountable one, is of creosote.

Without going quite so far as our author, who asks what practitioner would now give cinchona in powder or extract, in preference to the sulphate of quinine, or salicine, we would affirm that an accurate acquaintance with the new remedies becomes every day more necessary; and we would observe, in addition, that a physician must be far indeed above or below instruction, if the study of this Formulary does not lend new vigour to the substance of his prescriptions, and new elegance to their form.

Outlines of Comparative Anatomy. By ROBERT E. GRANT, M.D., &c. Professer of Comparative Anatomy and Zoology in the University of London, &c. Part I. containing Osteology, Ligaments, and Muscles; illustrated with sixty-five Woodcuts. London, 1835. 8vo. pp. 144.

This work is strictly what its title denotes,-Outlines of

Comparative Anatomy.

In the part now before us, the general structure of the bones, ligaments, and muscles, is traced through the various grades of animated being up to man; the anatomical facts are accurately stated, and no physiological theories are deduced from them; hence we have nothing to dispute, and little to expatiate upon; a hard and hapless situation for reviewers.

In attributing a skeleton to all animals, we are correct only in as far as the osseous system is considered as that of support, without reference to its texture, or its position in relation to other parts: of the various offices to which it is subservient in different classes, that of supporting the frame is alone common to it in all. Thus, in the higher animals, the skeleton affords a great system of levers for muscular action, and forms a defence only for particular organs; in the testacea, while it affords attachment to muscles, it is of still more importance as a general defence for the soft parts: again, in animals whose habits or mode of existence are peculiar, we sometimes find it ministering to such peculiarities; thus, in birds, it is a pneumatic apparatus, adapted to their necessities as travellers of the air; in many quadrupeds, the skull is an offensive weapon used in contending with their adversaries; in the pholas, the shell is a tool, wherewith the animal excavates, in the solid rock, a cavern for its dwelling, and, by some process imperfectly known, enlarges its habitation, as its own bulk increases; but, in all classes, the osseous system affords the means of support and connexion to the frame, and, as no animal is destitute of some such support, a skeleton, or something analogous to it, in its most invariable and important function, may be said to pervade the animal creation.

Anatomically considered, the organs of support vary infinitely in their structure and distribution, in the lower animals, sometimes bearing an analogy to the bones, at others to the skin; but in all consisting of some texture firmer than the rest, which serves to determine the size and shape of the entire organism, and to maintain its integrity against the external impressions to which, under ordinary circumstances, it is subjected.

it is subjected.

"These denser parts of the body serve as a solid framework to give form and solidity to the whole fabric, and to protect the more delicate organs. They consist for the most part of earthy materials separated from the food by the vital processes of the animal, and may be placed on the exterior or in the interior of the soft parts. These inert materials, or passive organs of locomotion receive their forms from those of the soft parts, and are liable to change with the varying conditions of the contiguous living parts. When placed on the exterior of the body, they may, without being organized, keep pace with the progress of growth in the living parts, by being periodically cast off and renewed; or they may increase by the addition of more extended layers to their surface; or their dimensions may be continually influenced by the contact of the parts which formed them. But when this solid framework is internal, and is everywhere surrounded by the soft parts, giving attachment to muscles, or enveloping and protecting delicate organs, it cannot be conveniently removed from the system in a mass, nor preserve its proportions by the mechanical addition of layers to its surface. and is generally organized or permeated in every point by the soft parts which absorb the decayed materials and renew them particle by particle. The earthy materials thus formed by animals for the support of their soft parts are various, and their particles are generally united together by means of a condensed albuminous or gelatinous matter, which gives firmness and tenacity to the mass. Silica is found in the lowest forms of radiated animals; carbonate of lime in the molluscous classes; carbonate and phosphate of lime in the articulated animals, and phosphate of lime in the organized skeletons of the vertebrata. These earths, in consolidating, assume forms by the influence of laws which are in accordance with their ordinary physical properties, this we observe most obviously in the lowest animals, and least in the highest classes where the crystalline arrangement of the particles is most equivocal; but under every condition they alike form a normal part of the structure, a solid framework more or less complete, constant in its form and structure in the same species, and varying in its form with the specific differences of animals. This solid framework forms the osseous system of animals, or the skeleton, as it has been termed from the dry and earthy nature of the materials which compose it. The osseous system, though not the most important nor the most universal system of animal organization, is met with under some form in every class of the animal kingdom, though not in all the animals of each class." (P. 1.)

We shall here briefly allude to the organs of support, in some of their less familiar forms, as developed in animals low in the scale of beings.

Organs of Support in the Radiated, or Cyclo-Neurose Classes. In this lowest division of the animal kingdom, the skeleton is extremely various, consisting of one solid mass, or of parts symmetrically arranged; composed of a flexible horny substance, of siliceous or calcareous spicula, or of masses of carbonate, with some phosphate of lime. In these animals, the osseous parts appear to be extra-vascular, and to increase by the simple apposition of new portions.

I. Polygastrica. In this class the skeleton exists,

a. As a mere condensation of the common integument; as in volvox globator, so abundant in stagnant pools.

"This spherical transparent green coloured, tuberculated animalcule exhibits in its interior numerous smaller, round, spotted, and similarly formed beings moving to and fro, and the entire volvox does not change or vary its external form while it is seen swimming about slowly with the enclosed young. When the exterior capsule, or the parent animalcule bursts, and the young have escaped, we observe its fragments to retain their original form with some degree of elasticity when they are tossed about in the fluid by the motions of other animalcules." (P. 3.)

- b. As a thin elastic sheath enveloping the body, into which the animal can withdraw itself, and from which it can protrude its anterior ciliated portion for the purposes of nutrition, respiration, or locomotion; as in vaginicola innata, a common marine animalcule.
- II. Poriphera.—The skeleton of poripherous animals consists of separate minute, earthy, crystalline spicula, connected together, by a condensed, elastic, cellular substance; or of tubular elastic filaments of a horny consistence. These hard parts are developed internally throughout the whole cellular tissue of the body, and are often protruded externally through the surface, to protect the pores, or the large vents. The earthy spicula in most of these animals are silicious, in many they are calcareous, and, like the horny filaments of other species, they appear to be tubular like many natural crystals, and to have no aperture leading into their internal cavity. The spicula are generally united into fasciculi by an enveloping glutinous, or condensed cellular substance, and by the junction of these fasciculi in various modes, fibres are formed which traverse every part of the body, forming the boundaries of canals and orifices. and giving form and support to the whole of the gelatinous or soft cellular substance of the animal. The forms of these hard parts are different in every distinct species of these animals, and they are constant in the same, so that they present useful characters for the distinction of species in this polymorphous class. formed from materials due to the vital energies of the animal, and they form normal and necessary parts of its structure, like the solid skeletons of higher animals." (P. 5.)

The skeleton, composed of calcareous, is generally more complex than that formed of siliceous spicula, and these two kinds of spicula do not appear to occur in the same animal. Siliceous spicula, similar to those of the poripherous animals, occur abundantly in the plants to which such animals are most nearly allied. Haliclona occulata affords an example of the siliceous, and Leuconia compressa of the calcareous skeleton.

In the skeleton composed of horny spicula, fine, elastic, tubular filaments are united together, and distributed around the pores, canals, and vents. Sometimes the cavity of the filaments is filled with an opake matter, which renders them more brittle; but they generally contain only a colourless fluid, as in *Spongia officinalis*, which may be taken as an example of the horny skeleton.

II. Polypiphera.—"The skeletons of zoophytes present a great variety of forms and characters, being branched or globular, or filiform, free or fixed, solid, massive, and calcareous, or soft, flexible, and horny, external or internal. The animals of this class obtaining their food by polypi, or highly organized sacs developed from the fleshy substance of the body, we generally find the skeletons, whether external or internal, to present cavities or cells for the reception and protection of these delicate organs; and the various forms of these cells constitute a principal distinction among the skeletons of this class. The simplest forms of the skeleton are presented by the horny zoophytes, or keratophytes, where it sometimes consists of tough, soft, flexible filaments, which surround the cells of the polypi throughout the whole mass of the body, as in the alcyonium and lobularia. These form a transition from the horny species of poriphera to the more distinct forms of keratophytes. In the horny species of zoophytes the skeleton sometimes forms a tubular external sheath enveloping the fleshy substance throughout all the ramifications of the body, as in all the sertularia, plumularia, antennularia, and many other soft, flexible, and ramified forms. The horny skeleton is sometimes formed by the deposition of successive layers within the fleshy substance of the animal, as in the gorgonia and antipathes. We have an example of an external, tubular, horny skeleton in the common campanularia dichotoma, where we observe it enveloping as a sheath the fleshy substance which occupies the centre of all the divisions of the root, the stem, and the branches. The exterior horny sheath which is exuded upon the surface of the flesh expands at the extremities of all the branches to form cells, for the lodgment of polypi. The base of attachment, spread out and ramified like a root, exhibits the same fleshy interior, and the horny covering extended over all its divisions. In the axillæ of many of the branches we observe large vesicles, for the protection and development of the embryo. These vesicles in the vaginiform keratophytes are composed of the same firm pellucid substance as the rest of the skeleton; and from the constancy of their forms in the same animal, and their differ-

ences according to the species, they afford useful characters for the distinction of these animals. They are deciduous parts of the skeleton, as they fall off after the matured gemmules have escaped from their interior. These gemmules are seen in little ciliated capsules, and the polypi are extended in various attitudes from the cells, in search of animalcules as food. The skeleton of these vaginiform zoophytes often presents a jointed appearance on the stem or branches, as in the *campanularia*; these consist of circular indentations of the surface which do not pass through the interior of the body, where they would interrupt the circulation of the nutritious fluid which passes through the fleshy substance in all parts of the body. They allow of a certain degree of flexibility at the most suitable parts of the skeleton, and in some of the horny cellaria they are connected with the deciduous character of the branches. In the gorgonia, and some other cortical zoophytes, there is an exterior fleshy substance in the living state which covers all parts of the horny skeleton. This fleshy exterior crust is indeed the animal, which forms by the deposition of successive layers the whole of the flexible, branched, horny, and solid internal skeleton. If we make a transverse section of a thick portion of the gorgonia, or antiputhes, we can easily perceive the concentric layers of which it is composed; and by peeling off the cortical fleshy mass from the exterior, and placing this living flesh in the sea, we find it to secrete a new internal horny axis for itself. The polypi, which are always and necessarily continuations of the fleshy substance of zoophytes, are developed from this thick fleshy crust in the cortical kinds, and hence we do not see any appearance of cells on the central horny axis in these animals, after the flesh has been removed.

"In the calcareous zoophytes the solid mass forming the skeleton is composed chiefly of the carbonate of lime, with a little of the phosphate; and the same condensed glutinous matter which forms the entire skeleton in the keratophytes, is diffused through the whole of the calcareous mass in the more solid lithophytes, where it serves to agglutinate the earthy particles, and to give solidity and tenacity to the entire mass. The calcareous skeletons of lithophytes are for the most part internal, massive, and consisting of a single piece. In madrepores, and many similar forms, the thin fleshy crust penetrates to a considerable extent the loose, porous surface of the calcareous mass, from which it is capable of receiving some protection, and consequently we perceive distinct indications of the positions of the polypi on the surface of the skeleton in these animals. These cells, for the protection of the polypi, have generally a radiated lamellar structure, and vary remarkably in their size and also in their form in different lithophytes. They are very minute in the porites, larger in the madrepores, still larger in the caryophylliae, and the fungia agariciformis forms but one enormous cell for the lodgment of a polypus like an actinia.

"In some of the lithophytes the fleshy crust, as in the cortical kinds of keratophytes, is of great thickness, and the polypi deve-

loped from this fleshy exterior mass leave no indications of their position on the surface of the internal calcareous axis. seen in the common red coral, which is a solid internal calcareous skeleton, striated with superficial longitudinal grooves, but presenting no calcareous cells for the polypi, which are protected solely by the fleshy thick covering of which they form parts. In the agariciæ, meandrinæ, and many others, we observe a laminated general surface of the skeleton for the protection of the fleshy mass, but no distinct cells for the polypi. In the virgulariæ the skeleton consists of a straight internal calcareous solid cylindrical pillar, occupying the longitudinal axis of the body, and protruding from the lower part of the animal. In the pennatulæ the internal calcareous axis is soft and flexible at its extremities, from the abundant proportion of glutinous matter in its composition, and to allow of the necessary contractions and extensions of the animal's body in a longitudinal direction. In the isis the internal solid calcareous skeleton is jointed at regular and short distances throughout the whole body, and there are no external cells for the polypi, which are entirely confined to the thick fleshy crust which covers the entire animal in the living state. The joints here consist of the same glutinous tough matter which pervades the whole calcareous axis, and are only uncalcified portions of the general solid They are formed by concentric layers, like the calcified solid portions of the skeleton, and they allow of considerable flexion in the branches and stem of this delicate, ramified, and highly organized animal. As in most other classes of invertebrata, we find many zoophytes which are destitute of an external or internal skeleton, as the common fresh-water polype, or hydra. the solid internal skeleton in the corticiferous zoophytes, we commonly find in the fleshy crust itself minute calcareous spicula. These small spicula compose the hard crust which is seen covering the horny axis of the gorgonia, as it is commonly preserved dried in cabinets; and in their occurring thus spread through the general fleshy mass in gorgoniæ, lobulariæ, and many other zoophytes, we observe a lingering analogy with the spicular form of the skeleton in the class of poripherous animals, especially in the calcareous group. The skeleton in the keratophytes is exuded from the fleshy substance in a soft and semi-fluid state, and quickly hardens after its separation from the living parts upon which it is moulded." (P. 9.)

"IV. Acalepha.—Although there are no solid skeletons in any of the soft, gelatinous, free, and floating animals of this class, we generally perceive some firmer cartilaginous portions of the body which afford support to the organs of progressive motion or of prehension. There are crescentic cartilaginous laminæ around the inferior central part of the body in the medusæ which give support to the contracting fleshy overhanging mantle, and to the absorbent tubes prolonged from that part. There are firm superficial longi-

tudinal bands in most of the ciliograde acalepha for the support of those minute vibratile fins, by the motions of which they are carried through the sea. From the feebleness of their muscular system, and from their swimming habits, it is obvious that the acalepha can

only support the lightest forms of the skeleton.

"In the velella limbosa, which floats on the surface of the sea, there is a thin flexible perpendicular crest, which is covered with a thin layer of the deep blue coloured mantle, and which rests obliquely on a horizontal stronger transparent flexible plate. The thin perpendicular crest, which rises above the water and serves as a sail, appears to be composed of the same condensed glutinous or horny substance which composes the skeletons of the keratophytes. The horizontal plate is thicker, concave below, marked with concentric lines of growth, and gives support to the deep blue mantle above, to the delicate marginal tentacula, to the numerous tubular suckers, and to the stomach placed beneath this concave horizontal plate.

"The porpita, which is another of these floating acalepha, presents a similar thin plate, to this horizontal lamina of the velella, for the support of the same parts, but of a round form, of a white colour, and of a porous texture. These two simple genera of acalepha present examples of the thin, light, and delicate forms of the skeletons which we find in almost all the floating marine inverte-

brata." (P. 15.)

In the next higher class, the *Echinoderma*, the skeleton begins to be more defined, and, through the succeeding classes, is gradually developed into forms more generally familiar to anatomists: we shall not, therefore, extend our extracts from the osteological portion of the work, the few we have given being intended merely as examples of the author's manner of treating his subject. The myology only commences near the conclusion of this first part, and breaks off in the abrupt style now in fashion; against which, and the whole system of publishing books in *frustules*, we beg leave here to enter our formal protest: it is unsatisfactory, inconvenient, and expensive, and can be approved of only by lazy and desultory readers.

The following account of the vibratile cilia, which are at once organs of locomotion and respiration in some of the radiated animals, shows how complex and perfect are the muscular actions in animals very low in the scale of being, and sufficiently demonstrates the futility of that hypothesis which regards nature as a tyro toiling through the difficult work of creation in a long series of experimental lessons: how can this be the case when we find, in the cilia of a polypus, such precision and activity of motion, that the important function

of respiration is left, as it were, to be sustained by the vigilance and dexterity of the animal itself!

"In the vaginiform zoophytes the internal currents of the body are not produced by the contractions of the internal fleshy parietes, though compared by Cavolini to a heart, but by the action of vibratile cilia; and the open base of the polypi often contracts, as if by a movement of deglutition. The polypi being the organs by which the food is attracted, seized, and digested, and the surface of the body aerated, they possess the most complicated structure and The tentacula surrounding the mouth, as in the highest vitality. the flustra carbesia, have generally minute vibratile cilia disposed along their sides, by the action of which currents of water, conveying animalcules and other food, are directed towards these prehensile and digestive cavities. In these complicated and highly irritable polypi of the flustra, we perceive numerous muscular bands, connecting the lower part of the polypus with the aperture of the cell; and others passing from the same part of the polypus downwards, to connect it with the bottom of the cell. The vibratile cilia move the currents outwards along one side of each tentaculum, and inwards along the other side, and they are generally visible only while they move in the direction of the currents which they produce, that is, in their forward stroke. When in full activity the cilia are invisible in their backward movement, from the velocity with which they resume their position, to commence a new stroke forward. vibratile cilia are thus generally perceptible only in their slow forward impelling movement, they have some resemblance to a stream of globules flowing always in one direction. There are about fifty cilia on each side of a tentaculum in the flustra carbesia, and nearly forty millions on a moderate specimen of the entire animal. In many zoophytes they are much more numerous; so that these fixed and plant-like animals, though possessing a very low degree of irritability in their general mass, are well provided with active organs to bring their food towards them, and to renew the stratum of water in contact with their surface, for the purpose of respiration." (P. 133.)

We conclude a notice, rather than a review, of this accurate and well-digested work, by recommending it strongly to the perusal of all students of medicine—we say of all students of medicine; for every physician must be a physiologist, and no man can be a physiologist without a competent knowledge of comparative anatomy.

A Practical Compendium of the Diseases of the Skin, with Cases. By Jonathan Green, m.D. London, 1835. 8vo. pp. 371.

Books on the Practice of Physic admit of an obvious division into those which discuss the phenomena of some disease, or class of diseases, and those which investigate and define the powers of some remarkable remedy. The work now before us belongs rather to the second than to the first class; for, though it is not only judicious and instructive in substance, but lucid, and even elegant in style, its most striking merit consists in its exposition of the unrivalled efficacy of warmbathing in cutaneous diseases. We would not, however, be understood to imply that the nosological part of the work is defective or erroneous; far from it. The reader, indeed, who merely recollects Dr. Green as the author of a very small tract on the advantages of bathing, will scarcely recognise his old acquaintance: the style, the tone of his precepts, the manner of relating the cases, are no longer the same; he will be gratified with this agreeable metamorphosis—lateritium invenit, marmoreum reliquit.

The sulphur-fume bath appears to be Dr. Green's favourite; and we have only to regret that no philanthropist has yet made this excellent remedy accessible to the bulk of the community.

Dr. Green, in his classification, has chiefly followed Willan and Bateman; but has adopted many of the improvements of

Rayer and Biett, and has added several of his own.

We shall now proceed to touch upon a few scattered points in this Practical Compendium; which, from its nature, does not require a regular analysis. Our author commences his introduction with the following sentences. "It is my purpose in the following pages to present a systematic view of the diseases usually regarded as belonging more peculiarly to the skin. It is not my intention, however, to enter into a particular detail of the symptoms, treatment, &c. of every one of the species composing this class,—many of them are held as falling within the province of the physician or surgeon generally, and are to be found treated of at length in every good system of medicine or of surgery, and many of them are so rare, that, in this country, at least, their names are all that are known to us." (P. 1.) We confess that we do not fully comprehend the lines that we have marked in Italics; the exclusion is too sweeping, and Dr. Green puts himself out of court altogether, as the lawyers would say: if he will not enter into minute details concerning diseases which fall "within the province of the physician or surgeon generally," what is left for him?

The following are Dr. Green's accounts of the ordinary English practice in cutaneous diseases.

"All that has been done in regard to the treatment of this class of complaints in this country of late years amounts to a few experimental trials of certain heroic remedies, among which, mercury, arsenic, and prussic acid, figure in the foremost rank; and endeavours to force ourselves into the belief that cutaneous diseases were uniformly owing to some mysterious and indefinable affection of the digestive organs, nowise observable in nine cases out of ten, in any derangement of their functions, but for which the blue or Plummer's pill and purgative medicines were the approved specifics. One or other of these pills was therefore almost uniformly commenced forthwith, and ample doses of purgative medicine were prescribed. This course being persevered in for some time, and no good resulting, as was most frequently, though perhaps by no means invariably, the case, small doses of the hydrargyri oxymurias, combined with decoction of sarsaparilla, followed. This failing, in like manner, Fowler's arsenical solution, and perhaps decoction of dulcamara, were next recommended, and these either proving ineffectual against the disease, or causing some suspicious and unpleasant disorder of the system, were in their turn abandoned. The patience of the physician as well as of the patient (still truly patient in one, but no longer so in each sense of the word) being now worn out, they usually parted company at last, little satisfied with each other, the one lamenting the obstinacy of skin complaints, the other inveighing against the inefficacy of medicine. if not against the ignorance of its practitioners." (P. 2.)

"The treatment pursued in cutaneous diseases, the true end and aim of all preliminary study of their characters, has necessarily partaken of the obscurity that has hitherto prevailed, and that still prevails in regard to their nature. I have already hinted at the fact that a similar routine is indiscriminately followed in almost every one of these affections; in France a course of bitters and sulphur, in England one of mercury (in one or other of the infinite variety of forms into which it has been tortured by ingenuity) and of purgatives, are the approved and universally received specifics; it matters not that disappointment again and again attends the prescription of these medicines, the mind once familiarized with a favourite notion is not often emancipated from its empire even with the evidence of its falsity; and then the diseases of the skin were held such rebellious affections, that the medicines were generally excused for their want of efficacy, and prescribed as before in the next case that occurred." (P. 13.)

It is unnecessary to point out the inconsistency of the two accounts; but even the more ample and liberal one gives a very imperfect list of the remedies employed by English physicians in skin diseases. Nothing is said in it of the use of

Liquor Potassæ in Psoriasis, of Dr. Beck's treatment of Lepra by tar administered internally; of the cure of syphilitic eruptions by iodine; or of the use of external stimulants in porrigo. The effects of sulphureous baths, too, in lepra and psoriasis, have been tried by Dr. Bardsley on a very large scale. It is quite clear, from a hundred passages in this book, that Dr. Green is well acquainted with almost every point of British practice relating to cutaneous diseases; and he is, therefore, the less excusable for putting together the hasty and erroneous burlesque of it which we have just quoted.

In treating of "the effects of therapeutic agents," Dr.Green, of course, dilates at great length upon the advantages of bathing; far from finding fault with this, we are extremely pleased with it; partly because nothing can be better than the minuteness, and even the prolixity of enthusiasm on a subject where the writer is qualified to appreciate, not only the broader colours, but the more delicate shades; and partly because this branch of therapeutics is inadequately valued by the mass of the profession, as well as of the public. Holding these opinions, therefore, we make no apology for the length of the

following quotation.

"The simple cold or tepid bath frequently gives great relief in many diseases of the skin, greatly allaying the itching, and state of nervous irritation that attend them, and thus conducing to the ultimate cure. I am inclined to believe that the value of seabathing is greatly overrated in its effects upon affections of the I have seldom known it accomplish any permanent good in this class of complaints, and, on the contrary, I have often heard the origin of different forms of skin disease ascribed to its influence. Baths of the natural mineral waters have been long known to prove very serviceable in many diseases of the skin. These are susceptible of being closely imitated by art; we can, indeed, in this way produce more powerful and more speedy effects than result from bathing in the natural mineral springs. The artificial sulphureous water bath, with a quantity of gelatine or fine glue dissolved in it, is one of the best baths known in many inveterate diseases of the skin.

"But every form of water bathing that has been tried falls immeasurably short of the hot air and vapour bath, in its immediate and powerful curative influence on the great majority of the diseases of the skin. The hot air and vapour bath may very properly be spoken of together, inasmuch as their effects on the system are very nearly similar. I am in the habit of administering the hot air bath to patients at first, at the temperature of about 98° of Fahrenheit, and of raising it gradually in the course of from fifteen to twenty minutes to 110°, and, if the full effect of the bath is not obtained, to 120°, or even 130°, of the same scale. The patient

seated in the apparatus and exposed to this degree of heat, is only sensible at first of a slightly increased but pleasant warmth. Within a few minutes the expression becomes cheerful and animated, the eyes sparkle, the countenance looks florid and then flushed, the pulse rises in frequency, and gains much in fulness, but is soft; the whole body, the face (which of course is not enclosed) as well as the other parts, next become bathed in perspiration, so that the sweat is seen standing in beads upon the forehead and trickling down the cheeks. The patient is now no longer sensible of any increase of temperature, although he is perhaps exposed to a heat of 150 degrees of Fahrenheit. It is matter of astonishment to the generality of persons how such a temperature can be borne without injury. But it is in virtue of the same physical law which fits man to become the denizen of lands within the tropics and of regions near the pole. All increase of activity in the vital processes of respiration and circulation, the furnace and flue of the system, induced by stimulus of any kind, especially by that of augmented temperature, is accompanied with a commensurate increase in the exhaling functions of the skin, and of consequent evaporation from its surface, a process the cooling effects of which are familiar: the strata of hot air immediately in contact with the body are successively robbed of their excess of heat, by the conversion of the watery products of perspiration into vapour, in which the caloric that was sensible, and that tended to raise the temperature of the body, immediately becomes latent. There is consequently no means of cooling a hot air bath, say of 120 degrees, down to its own temperature 98 degrees, so effectually as the immersion within it of a living human body; and this is the reason that the temperature falls so rapidly in ill-constructed baths, and that it has to be kept up so incessantly even in those of the best construction.

"After the perspiration has appeared about five or six minutes on the forehead, the full effect of the bath has been obtained, and the patient should immediately quit the apparatus. If the stimulus be continued longer it is at the expense of the agreeable feelings first induced; a degree of languor and exhaustion succeeds to these, and patients then feel drowsy and disposed to sleep. But if the bath be guitted when the effects are at their height, a comfortable degree of warmth is experienced for some hours afterwards, and the activity of the body and the elasticity of the mind, far from being diminished, are on the contrary very much increased. It sometimes happens that the skin is in so dry and unperspirable a state, that a moderate degree of heat in the bath fails to induce sensible perspiration, and then, if the temperature be allowed to rise rapidly, patients complain of an unpleasant scorching sensation. In these cases, a little watery vapour let into the bath by an apparatus contrived for the purpose, gives immediate relief, and very speedily induces the state of surface we are desirous of obtaining." (P. 18.)

Perhaps, if others have overrated the value of sea-bathing in

cutaneous diseases, our author places it too low: we would rather incline to the golden mean of Hufeland, who thinks it commendable, provided that it is preceded by the use of internal remedies, that the disease is merely local, and that the course is began with warm sea baths and the temperature gradually diminished. (Endlich verdient es auch bey chronischen Hautkrankheiten empfohlen zu werden; doch mit der Vorsicht, dass vorher ein gehöriger Gebrauch innerlicher Mittel gemacht, und die Krankheit nur noch blosse Localkrankheit sey, und auch dann, dass man erst mit erwärmten Seebädern anfange, und allmählig zum kalten übergehe.—Hufeland. Praktische Uebersicht der vorzüglichsten Quellen Teutschlands. Das Seebad. S. 266.)

After cautioning us against employing the hot-air and other stimulating baths in the acute stages of several cutaneous diseases, such as eczema, ecthyma, impetigo, &c. he remarks that they are excellent remedies in cases where there is a shattered constitution without any tangible disease. The warm bath, in fact, is the best palliative for that incurable malady, old age, and is recommended, as we recollect, in the very strongest terms by Gregory in his Conspectus Medicine theoreticæ. Why did not Darwin, who saw that Prometheus was the first distiller, and that the vulture devouring his liver shadowed forth the hepatic diseases of dram-drinkers, discover

also that Medea's cauldron was a sulphureous bath at 100°?

"Dr. R., aged eighty-five, for nearly thirty years senior physician to the largest hospital in this country, had long been in very indifferent health, and affected with a constant nervous shaking of the arms, when he was incidentally persuaded to try the effects of the sulphur fume bath for a troublesome impetiginous disease of the legs. Under the use of this remedy, not only did the affection of the legs gradually disappear, but such a signal improvement took place in the general health, that the doctor declared he thought if he had known and made use of the sulphur fumigations sooner, he might very possibly have extended his life to a hundred years. In little more than a month, he told me that though for years he had scarcely been able to digest any thing, not even a potato, unless boiled until ready to fall to pieces, he now thought he could eat a raw carrot without inconvenience." (P. 22.)

Having passed through the introduction, we now arrive at the body of the work; the first division of which treats of the inflammatory affections of the skin; and the first subdivision of this, again, is appropriated to the exanthemata.

The Diseases placed under the head of Exanthemata are Erythema, Erysipelas, Roseola, Rubeola, Scarlatina, and

Urticaria.

We find two cases of Erythema treated by the vapour bath.

"A young lady of fair complexion, of a sanguine but very nervous temperament, after considerable exertion, found herself covered on the upper parts of the body and neck, as well as over the arms, with red patches, varying in form and size, and showing in their centres whitish and hard elevations, similar to gnat-bites. In some places the patches from running together produced a curious marbled appearance of the surface. The complaint was attended with much inconvenience but little pain, and had existed more than a month when I saw the patient for the first time. There was a regular aggravation of the symptoms every day; the small whitish tumours then became larger, and the redness of the other parts assumed a darker hue; the surfaces affected then looked shining, tense, dry, and as if swelled; the red colour fading towards the healthy parts. The patient had little appetite, and her nights were sleepless, or her rest was broken; the tongue was covered slightly with greyish mucus, and she complained of extreme lassitude. I advised a trial to be made of the simple vapour bath; medicine did not seem to be needed. After the third bath, the patient fell into a profuse perspiration; the skin then became soft and moist to the touch. The parts which had been the seat of the disease became wrinkled and faded, the small elevations gradually shrunk away, and in ten days there were no traces of the disease left.

"A gentleman of a robust and sanguine temperament, aged about fifty, received a hurt in his back by a fall from his horse, for which it was treated as usual in such cases. Amongst the means resorted to, he had used the essence of mustard (spirits of turpentine) as an embrocation, and to this was attributed a very general attack of erythema, extending from the forehead to the ancles, with which he was immediately afterwards seized; but the back and parts rubbed by the embrocation, and fretted perhaps by the close contact of the clothes, were those which were more particularly affected with this superficial inflammatory blush. Even in the midst of these, however, there were some linear spaces where the skin appeared almost as in health; neither, indeed, did the very reddest parts of the skin look tense or swollen, but simply as if they had been stained with a red, and in some parts purplish red, The constitutional derangement was not severe; but there was still considerable depression of strength and spirits, loss of appetite, small and frequent pulse, tongue covered slightly with mucus at the base. The inflamed surface was uniformly extremely tender, and felt, as the patient expressed himself, as though hot water had been applied to it. Gentle laxatives and diaphoretics, with the use of the vapour bath daily, proved sufficient to remove all the symptoms within the fortnight; the patient then, for a short time, took the nitric acid in small doses, as a tonic, and soon became well." (P. 31.)

Our author even ventures to recommend the sulphur fume-

bath in erysipelas, after the first violence of the symptoms has been mitigated by the antiphlogistic system. He gives a case, in which he adopted this bold practice with great success. The patient was a lady, aged forty-five, of a weak and flabby constitution, who for some time had suffered two or three attacks of erysipelas every year. On the 12th of October, 1831, Dr. Green saw her for the first time; and, on the 15th, the symptoms having diminished in severity, she took the bath for the first time. It produced immediate relief, was repeated with great benefit, and would seem to have strengthened the vital powers permanently, as the disease has not returned.

Under the head of Scarlatina, our author recommends the vapour bath as the best means of arresting the anasarca by which this disease is sometimes followed. He adds his testimony to those which have so often been published lately, of the prophylactic powers of belladonna; but the sentence in which his evidence is couched is ambiguous: "I had very lately an opportunity of witnessing the good effects of this medicine among the children assembled at a boarding-school, where scarlatina broke out; four of the children to whom the medicine was administered escaped the disease entirely."

(P. 61.)

Was the medicine administered to four only; or, out of a greater number to whom it was given, did four escape the disease?

The next division (or order) is Vesiculæ, which includes Scabies, Herpes, Eczema, and Miliaria. Dr. Green includes Scabies in this division (though placed by Bateman among pustular diseases,) because it is now pretty generally admitted to be vesicular in its primary form; and he excludes Vaccinia and Varicella, from their obvious affinity to the varioloid group.

Bullæ form the third division, containing two genera,

Pemphigus and Rupia.

Pustulæ form the fourth division, containing seven genera, Variola (including Varicella), Vaccinia, Acne, Mentagra, Ecthyma, Impetigo, and Porrigo.

The following cases of impetigo are interesting and

instructive.

"Case II. A gentleman, nearly sixty, of a gross, robust habit, applied to me, in the summer of 1832, on account of an eruption on the skin, from which he had suffered more or less during the last eight years. The eruption consisted of numerous small yellow pustules on the insteps, ankles, and lower parts of the legs, which were now much swollen, and encased with lamellar crusts, impetigo sparsa: the hands and several parts of the trunk of the body were

similarly affected. The patient's chief complaint arose from the itching, which was at times very annoying; otherwise he was in fair health, and went about his affairs, though it often required the exercise of considerable ingenuity to apply a sufficiency of rag in such a manner as to absorb the abundant sero-purulent discharge that issued from the parts affected with the disease. June 12th, the patient was bled to the amount of sixteen ounces, and was directed to take every morning four table spoonfuls of an aperient mixture consisting of infus. sennæ, \mathfrak{F} vi., tinct. ejusdem, \mathfrak{F} i., syr. rhamni \mathfrak{F} i. His diet was also regulated, and a sulphur fume bath administered daily.

"The gross habit of this patient seemed to require bleeding and purging; otherwise the shining redness and heat of skin that attend impetigo should not deter from the use of sulphur fumigation, which, although apparently counterindicated, I never knew otherwise than of the greatest use in this complaint: let the external appearances of inflammation be never so great, it is surprising how soon the discharge and redness begin to abate under the use of this appli-

cation.

"On the 30th, not a vestige of the disease was to be seen, except between the thumb and fore finger of each hand, where it had probably only been kept up, by the patient picking the parts with his nails; all itching had ceased, and for the week previous the opening mixture had been discontinued. The fume baths were also soon discontinued, as no longer needful; the patient appeared

restored to perfect health.

"To celebrate this redemption from his long continued and harassing complaint, my worthy patient gave a grand feast to his numerous friends, who were invited to rejoice with him on occasion of his happy recovery. Moderation is difficult in the moment of victory, and my patient committed an excess, which after twenty-four hours brought on an almost general attack of inflammation of the skin, followed by a copious eruption of pustules; so that he returned, depressed in spirits, to resume the former treatment. In the short space of eight days this active and general accession of disease was completely subdued, and all remedies were left off.

"I have had an opportunity of frequently hearing of this patient: he has had no relapse of his disease worth naming; a few pustules on the hands are all he has seen of it since he was under my care. I have been rather surprised at this, for I know that his habits are such as are most commonly held to be inimical to complete recovery

from chronic affections of the skin especially.

"Case III. Mrs. H. of Faversham, aged seventy-four, was recommended to try the effects of sulphureous fumigation under my direction, by the medical gentlemen she had consulted in London, Dr. Gordon and Sir Benj. C. Brodie, on account of an eruption of impetiginous pustules, extending over the whole surface of the body, except the face, the palms of the hands, and soles of the feet, under which she had laboured during the last four years. From the nape of the neck and throat to the heels and insteps, the surface of this gentlewoman's body was generally inflamed and covered with small yellow-headed pustules and laminated incrustations, from under which a profusion of sero-purulent fluid was constantly pouring. The itching and general irritation of the surface were very distressing, so that the patient scarcely ever enjoyed an

hour's quiet and uninterrupted sleep.

"In spite of the apparently high state of inflammation, the sulphur fumigating bath was immediately entered; and with so happy an effect, that the succeeding night was tranquil, and a considerable portion of it passed in refreshing sleep. After the fourth bath the amendment was so great, that the patient, with a view of accelerating the cure still more, insisted upon taking two baths daily. In the short period of a fortnight, during which time Mrs. H. had taken twenty-two baths, not a vestige of this extensive disease was to be seen, and she returned into the country quite recovered." (P. 148.)

The fifth division consists of Papulæ, of which the genera are Lichen, Strophulus, and Prurigo. In this last disease the sulphur fume-baths are of extraordinary advantage, but it is often requisite to premise bleeding and purging; otherwise what ought to be the remedy becomes the aggravation of the disease.

Squamæ. This order includes the genera Lepra, Psoriasis, and Pityriasis. In treating of lepra, our author says:

"If the disease be of recent date and attended with considerable inflammation, itching, and constant uneasy sensations in the patches, general bloodletting and emollient measures of various kinds, such as the tepid gelatinous or gruel bath, the simple vapour bath, and the application of cream or hog's lard to the irritable surfaces, will be found to give great relief, and of themselves frequently dispose the disease to recovery.

"Simply irritating applications, such as pitch plasters, tar ointment, salves of the bryonia alba, chelidonium, &c. which used to be mostly employed in cases of leprosy by our forefathers, are now acknowledged to be even worse than useless, often positively ag-

gravating the disease." (P. 204.)

We certainly would not recommend stimulants, if the inflammation were considerable; but, in ordinary cases, our own experience agrees with the axiom of Heberden, that itching eruptions are to be treated with stimulating applications: and our author, though he disapproves of tar-ointment, yet immediately afterwards recommends such remedies as ointments of nitrate of mercury and ioduret of sulphur.

Dr. Green has only had three incurable cases of lepra:

"One was that of a gentleman who took the sulphur fume bath

upwards of a hundred times, without deriving much or any permanent good from it. Another gentleman, after a trial to the same extent of this means, and a similar result, went to India, and I heard no more of him. The third is a medical gentleman, who has had the disease from puberty, and is now fifty years of age. He too has taken more than a hundred fumigations, though very irregularly, and considers himself incurable of the disease in question; otherwise he is in fair health." (P. 213.)

Tubercula, the seventh order, contains five principal genera; they are, Lupus, Greek Elephantiasis, Cancer, Molluscum, and Frambæsia.

Furunculi, the eighth order, contains Furunculus, Anthrax,

and Pustula maligna.

After the discussion of the eight regular orders, we come to those cutaneous diseases which appear under a variety of elementary forms; and, as our author has very properly excluded Burns and Chilblains from this division (into which they are thrust by Rayer and Alibert,) it contains only syphilitic eruptions. We shall content ourselves with extracting a single case:

"Captain A. B., of the Guards, placed himself under the care of Mr. Earle, when already reduced to extremities by the united influence of secondary syphilis, and the constitutional disturbance induced by the ill-timed use of mercury. The forehead and limbs were covered with numerous foul superficial sores, and the parietes of the abdomen and thorax with ulcers of such depth, that several of them seemed to penetrate to the peritoneum and pleura. One side of the scrotum and one testicle had sloughed away, before I saw the patient; the other was lying naked, hanging by the cord, when he first visited me. There was also extensive superficial ulceration of the throat, and the shins were occupied with several nodes. The patient complained of severe suffering from nocturnal pains, and was greatly reduced in strength and spirits, and much emaciated, although in the prime of life.

"All that unwearied attention and the best advice could do in this case were done, but no decided improvement took place, and the state of the general health was such, that Mr. Earle felt it impossible again to have recourse to mercury. As a last measure, therefore, and with a view of arousing the drooping powers, he

recommended a trial to be made of the sulphur fume bath.

"The first three exposures in the fumigating apparatus occasioned a good deal of smarting of the open sores, and seemed even to increase the restlessness and general distress endured in the night: on this account opiates were prescribed, and with the best effects. After the fourth fume bath had been taken an evident amendment was visible. The patient felt stronger, and generally better; his appetite began to return; several of the smaller sores

had healed, and others were in progress of cicatrization; his spirits also rose, and his hopes of ultimate recovery revived. The baths were left off after the fifteenth, for ten days, in consequence of an attack of diarrhea, which, however, did not interfere with the patient's improvement; for, on his return, almost the whole even of the very deepest ulcers had cicatrized. The remaining testis was nearly surrounded with a new integument; and Captain A. B. was gaining flesh and strength so rapidly, that he very speedily declared himself quite recovered. As a measure of precaution, small doses of the hydrarg. muriat. were continued for about six weeks afterwards; and as several years have now elapsed without any return of syphilitic symptoms, it seems probable that the poison was completely eradicated from the system.

"The remaining testicle was uninjured: Captain A. B. is married

since his illness, and the father of four healthy children."

We shall pass over the remainder of Dr. Green's book, and conclude with a very large extract from his "useful formulæ."

BATHS.

Sulphureous Water, or Artificial Barréges Bath.

R. Sulphuret. potassæ, lbi. Aquæ, Cong. xxx. M.

Sulphureo-Gelatinous Bath.

R. Sulphuret. potassæ, \overline{z} ij— \overline{z} iv. Aquæ, Cong. xxx.

Add to this solution,

Ichthyocollæ, lbi-lbij.

in aquæ bullientis soluta lbx. M.

"This bath is preferable to the artificial Barréges bath, as it is neither irritating, nor apt to occasion feverishness, which the common sulphureous water bath is.

"A cheaper and not less efficacious gelatine may be procured by dissolving from lbiss to lbii of parchment clippings in water, by long boiling, or by using a neat's or calf's feet for the purpose.

Emollient Bath.

"To an ordinary tepid water bath add a large basinful of thick gruel or paste, and mix it well with the water.

"One or other of these baths is often of great use in prurigo,

eczema, lichen, and impetigo.

Nitro-Muriatic Acid Bath.

R. Acid. nitrici, \(\)\;\ iij.

Acid. muriatici, \(\)\;\ ii.

M.

"To be added to the water of a tepid bath, which should then be about as sour as distilled vinegar.

Sublimate Bath.

R. Hydrarg. chloruret (oxy-muriat.), 3ii—3i.
Aquæ tepid. Cong. xxx.

"Sometimes prescribed in syphilitic affections, when we would avoid the action of the medicine on the stomach. Thirty are said in general to be sufficient for the cure. Formulaire de l'Hôpital des Vénériens.

Alkaline Bath.

R. Potassæ sub-carbon. ziv—zviii. Aquæ tepid. Cong. xxx. M.

"Very useful in promoting desquamation from the skin, and in allaying pruritus in several forms of prurigo especially.

Artificial Harrowgate Bath.

R. Sodæ muriat. lbij. Magnes. sulph. 3iij. Potassæ sulphuret. lbi. Aquæ, Cong. xxx.

FUME-BATHS, OR FUMIGATIONS.

Sulphur.

Sulphur. sublimat. 3i .- 3ij -- 3iij.

Chlorine.

R. Oxid. nigr. manganes. 3ss. Acid. muriat. 3i.

"It is sometimes advisable to substitute this bath occasionally for that of the sulphur fumes, when the disease of the skin, for which these are prescribed, proves very rebellious. It soon occasions the mouth to become sore, like the nitro-muriatic acid bath.

Mercurial.

Hydrarg. oxid. cinerei, zi-zij-ziij.

"The grey oxide is preferable to the red sulphuret of mercury or cinnabar, as it does not occasion coughing when inhaled, which cinnabar always does. It is, on the same account, greatly superior to cinnabar for fumigating ulcers in the throat.

Aromatic.

R. Gum. benzoin. 3iv-3i.

"Aromatic effluvia may also be raised in the heated air bath from any other of the fragrant gum resin, essential oils, &c.

LINIMENTS AND LOTIONS.

R. Potassæ sulphuret. ziij.
Sapon. mollis, zii.
Aq. calcis, zviij.
Spirit. vin. rect. zij. M.

"This is a good wash in porrigo especially, but is also useful in many other species of cutaneous disease.

R. Liq. potassæ, 3ij. Ol. oliv. 3iij. Aq. rosæ, 3i. M. R. Liq. potassæ, zij—ziv. Aq. rosæ, zii. M.

"These are both of great service in cases of obstinate lepra and psoriasis especially.

R. Acid. nitrici, Acid. muriat. aa gtt. xx. Aquæ rosæ, zvi. M.

"This may sometimes be used with good effect in cases of ptyriasis and of chloasma.

R. Hydriod. potassæ, 3ss.

Spirit. tenuior. \(\frac{7}{3} i. - \frac{7}{3} iv. \)

Aq. rosæ, lbss. M.

R. Hydrarg. chloruret. (corrosive sublimate,) gr. viii. Aquæ rosæ, lbi. Spirit. vini rectif. zi—zii.

"These are both excellent lotions in cases of acne. They may be made with emuls. amygd. amar. instead of rose water.

Eczema of the fingers.

R. Hyd. oxy-muriat. gr. ij—vj. Spirit. vin. rect. 3i. M.

Impetigo, Eczema, Lichen, &c.

R. Liq. plumb. sub-acet. 3i. Spirit. vin. rect. 3i. Aq. distill. lbi. M.

R. Acid. hydrocyanici, zij. Hyd. oxy-muriat. gr. iij. Mist. Amygdalæ, zvj.

A. T. THOMSON.

A. T. THOMSON.

Impetigo, &c. &c.

R. Sulphat. alumen.

zinci, aa zi.

Aq. ferventis, lbss. M.

Adde acid. sulphur. 3ss.

R. Acid. hydrocyanici, 3ij.
Plumb. acetatis, gr. xvj.
Aq. distill. zviiss.
Spirit. vin. rect. zij. M.

R. Hydrargyri, 3i. Acid. nitrici, 3ii. Aq. distill. lbv.

"Treat the mercury with the nitric acid, and complete the solution by adding the distilled water; half an ounce is used morning and evening as a lotion in scabies, prurigo formicans, &c. It does not stain the linen. The solution of the mercury in an excess of nitric acid is one of the best caustics and escharotics we possess, in arousing indolent sores generally, and in arresting the morbid actions of phagedenic ulcers, as of lupus, &c.

"A solution of uniform strength for use as a caustic, may be prepared as follows:

R. Hydrarg. proto-nitrat. sicc. 3i. Acidi nitrici, 3i. M." (P. 352.)

Upon the whole, we are much pleased with this book: it cannot fail to be instructive, as it is replete with the results of long and successful practice.

The Life of Thomas Linacre, Doctor in Medicine, Physician to King Henry VIII. The Tutor and Friend of Sir Thomas More, and the Founder of the College of Physicians in London. With memoirs of his Cotemporaries, and of the Rise and Progress of Learning; more particularly of the Schools, from the Ninth to the Sixteenth Century inclusive. By John Noble Johnson, M.D. Late Fellow of the Royal College of Physicians, London. Edited by Robert Graves, of the Inner Temple, Barrister-at-Law. London 1835. 8vo. pp. 363.

THE biography before us is a monument of the industry of its author, but contains very little which the most liberal construction can allow to find a place in a medical journal. must, therefore, dismiss it with a very short notice; but we should be sorry to have passed it over without any; for the Founder of the College of Physicians was the link that connected the old and the modern practice of medicine. many, or most of his predecessors, he superadded the clerical profession to his own; but, by the institution of the College, he gave rank to the professors of physic, and "a system has consequently been constructed for the public service, which has now been carried on for three centuries, by which the character and respectability of physicians, and, through them, of the whole medical profession, has been raised to a higher eminence than in any other nation of Europe." (Lives of British Physicians, p. 10.)

The events of the life of Thomas Linacre may be summed up in a few lines. He was born, probably in 1460, at Canterbury, and went to Oxford in 1480, where four years afterwards he was elected a fellow of All Souls College. He then spent two years in Italy, and took the degree of M. D. at Padua. On his return he taught Greek in the University of Oxford; and, about the year 1501, King Henry VII. called him to court, as the tutor and physician of his son Prince Arthur. Our author comments upon this last fact in the following manner:

"These offices Linacre was invited to fill about the year 1501,

and to them is said to have been added the still more important charge of the king's health in the capacity of domestic physician. As this trust not only constituted the highest honour, to which the members of the faculty of medicine could aspire, but involved in it the most important obligations, I shall offer a few remarks upon this presumed appointment, and upon the nature of the duty itself, as it existed in the middle of the fifteenth and early part of the sixteenth centuries.

"The unsettled state of physic as a science, before the revival of learning in the fifteenth century, rendered the practice of it rather a necessary accomplishment to the priesthood, with which it was generally united, than a distinct art cultivated on fixed and certain principles. To the ecclesiastics of the middle ages degrees in medicine conferred equal privileges with those in their proper faculty: but they gave to the possessor no claim to public confidence or to a remuneration for the services, which he might render by virtue of them; and the practice of the art was chiefly confined to men, who had seldom enjoyed the benefit of a scholastic education, or who boasted of acquirements in language, beyond a competent know-

ledge of the idiom and use of their vernacular tongue.

"The earliest mandate or warrant for the attendance of a physician at court, which the writer has been able to discover, is dated 33 Henry VI., a reign fertile in the patronage which was afforded to practitioners in medicine; but in that reign no appointment existed, which can justly be called physician to the royal person. warrant the king, with the consent of his privy council, deputed to three physicians, and two surgeons, the regulation of his diet and the administration of such medicines and remedies, as might be sufficient for his cure, without any allusion to the previous existence, or permanency of the office which they were authorized for a time to fill, or to a remuneration for their services. What was the nature of the malady, or what the reward of their efforts for its cure, does not appear. The king seems either to have been dissatisfied with the treatment which was adopted, or to have desired that spiritual consolation, in conjunction with medical advice, which could only be afforded by an ecclesiastic. In the following year, when he was seized either with a new disease, or an accession of his former complaint, he issued an order under his privy seal at Westminster, requiring the attendance of Gilbert Kemer, Dean of Salisbury, an expert, notable, and proved man in the craft of medicines, and in whom, amongst all others, the royal affection and desire is stated right specially to have been set." (P. 162.)

Dr. Johnson's style seems to us rather obscure; he means to say that medical practitioners at that time were divided into two classes, the clerical and the lay; of these the former had no legal claim to payment, and the latter were unlettered men-

The following note is very curious, on several accounts. It

is pleasant to be doctored by a king, when his remedies are sovereign, angelic, and noble, in the monetary as well as the common sense of the words.

"In the Cotton library is a volume of extracts from an original book of accounts of Henry VIII., with the sign manual at the end of every month, supposed to be the accounts of Sir Orlando Bridgman, Lord Keeper, in the twentieth year of that reign. The following items from this MS., relating to the medical disbursements, confirm what has been said on this subject, and furnish some curious particulars of the state of medicine in this reign. His majesty himself seems to have been actively employed in the good work of healing; and it must be confessed that whatever honour accrued to the king's physicians, the principal share of the profit appears to have fallen to the lot of the apothecary, whose office, as the name implies, was then to provide medicines, without taking any share in the prescription of them.

21 Hen. 8, May 16, to Cuthbert, the king's apothecary in full, xxx. l. xii. s. vi. d.

Oct. 1, to Dr. Baugh, for two sick men at Waltham, xv. shil.

13, to the serjeant apothecary his bill, xxviii. li. iii. s. x. d.

23 Hen. 8, April 9, to Cuthberd, the king's apothecary, on his bill, xxx. li. iii. s. x. d.

July 28, p^d to a poor child, the which the king's grace heled at Windsor, vii. s. vi. d.

Sept. 11, to two pooer folks that were heled of their sikeness, xv. sh.

18, to two pooer folke that the king's grace heled, xv. sh.

Oct. 23, to a pooer woman that the king's grace heled at Havering, vii. sh. vi. d.

- Hen. 8, Feb. 1, in reward to Dr. Yakesby and another physitian, iiii. li.

2, to my Lord Wiltshire, for a physitian called Dr. Nicholas, xx. angells, vii. li. x. sh.

March 30, p^d to my lady princess physitian in reward, xxvi. li. xiii. sh.

— Hen. 8, April 3, to Cutberde, ye king's apothecary, on his bill, for stuff by him delivered for ye king's grace, from last Sept. to last Marche, xxxviii. li. vi. s. viii. d.

June 27, to a pooer woman that ye king heled of her sickness, vii. sh. vi. d.

July 21, to a pour child that the king heled of his sickness, vii. sh. vi. d.

Sept. 9, to the kg apothecary for such stuff as he delivered to the kg use, xxv. li. iiij. sh. vi. d.

Oct. 5, to Dr. Butts, physitian, for y use of Dr. Thurleby, Bp of Ely, by king's command, x. li.

"The king had studied the art of pharmacy with success, and in a MS. collection of recipes, principally for plasters and unguents, compiled by his physicians for the royal use (Sloane MSS. in Mus. Brit. No. 1047,) are several of his own invention. The intentions, which these remedies were to fulfil, are in unison with the hypotheses and pathology of the day, and the pharmaceutical efforts of the monarch were evidently directed towards an alleviation of the evils and infirmities of which an uncontrouled and continued indulgence of his passions had tended in the latter part of his life to render him the victim." (Note, p. 166.)

The sixth chapter of this book contains a very copious and interesting account of the foundation of the College of Physicians. A long note, of which we can afford to extract only a part, gives two cases of plucking in the sixteenth century, which may not be altogether void of instruction in the nineteenth; for they show how useful a second examination may prove as a test of the soundness of the first one.

"The history of this transaction, which is found in the annals of the college for the year 1555, affords a proof of the anxiety of its members to fulfil the intentions of the founder and to discharge the obligations to which they had bound themselves at their admission. The university of Oxford had admitted Simon Ludford, originally a Franciscan friar and afterwards an apothecary in London, and David Laughton, a coppersmith, two ignorant, unlettered, and incompetent persons, to the honours of the baccalaureate in medicine. The college reproved the university by letter, recommending that the vote which conferred the degrees should be rescinded, and advising a more cautious conduct in the future dispensation of them. With the former the university did not think it fit to comply, and the college was meditating further proceedings, when the inquisition of the Cardinal Pole, in 1556, for the reformation of religion and faith, and the correction of collegiate abuses, enabled them to prosecute their appeal with more effect. The college immediately laid their complaints before the visitors, to whom they gave the following specimen of Laughton's pretensions. 'Cujus infantia cum suggessit, ut quomodo corpus declinaretur, exigeremus, respondit -hic, heec et hoc corpus, accusativo corporem; adding, egregius certè ex universitate medicus, cui humana vita committeretur." (Note, p. 292.)

Linacre died in 1524, at the age of sixty-four, of ulceration of the bladder, and was buried in St. Paul's Cathedral.

Those who desire merely a brief abstract of the principal events in the life of Linacre, and of the services which he rendered to the republic of letters, and to the medical profession in particular, may be satisfied with the excellent biography contained in the Lives of British Physicians; but those who wish, in addition, for information respecting the physicians and scholars who flourished during the reigns of Henry VII. and VIII., should consult Dr. Johnson's work.

We think that the Editor has scarcely used sufficient diligence in correcting the Latin, which is frequently quoted: what, for instance, is the meaning of the latter half of the

following sentence?

"Itaque te pro tuâ erga me benevolentiâ, et perpetuâ in omnes homines singulari humanitate peto et rogo, ut illum Titi Livii decades videre permittas; et ut perficias, quâm tum intelligat, has meas literas sibi si fortè voluit in emptione dicti operis multûm profuisse." (P. 7, note.)

Principles of the Treatment of Gout; with a further Examination of the Effects of Colchicum as a Remedy: and some Observations on the Use of Veratria in that Disease. By SIR CHARLES SCUDAMORE, M.D., F.R.S. London 1835. 8vo. pp. 54.

Sir C. Scudamore hopes that he "may, without incurring the charge of vanity and presumption, confidently present to the reader a code of principia, or principles, which may serve as a safe guidance to the knowledge and treatment of the disease." (p. 2.) Now, great as is the good humour of readers and reviewers in the present day, we are afraid that so tiny a code will not be deemed sufficient, in so wide and perplexed a subject as the treatment of gout. Were physicians absolute monarchs indeed, a few laws might suffice for the extirpation of gout. The spinage diet, with which Rust cured his obstinate case of chorea, or the apple fare with which Hufeland successfully combated an impetigo, might dispense with the necessity of colchicum or veratria: but, as Earls and Aldermen still refuse to live on a shilling a day, and work for it, physicians must still weave a rope of sand, while they endeavour to make health, and turtle, and a gouty habit, and colchicum, and champagne, cohere.

In the actual dearth, however, of fresh information on the subject, we will give an abstract of Sir C. Scudamore's opi-

nions.

Bleeding is to be practised as a remedy for gout, only when general plethora is very manifest, and the pulse is strong; though, of course, a gouty patient may require bleeding for some other disease. Leeches are rarely useful in acute gout.

Emetics are generally beneficial at the commencement of a severe attack, especially if well-marked dyspepsia be present.

Cathartics are indicated by theory, and recommended by practice. A combination of calomel and cathartic extract agrees with most persons, and a small quantity of James's powder may often be added with advantage: or the mercurial dose may be given at night, with opium or extract of poppies, followed by an aperient in the morning, which may be strong or weak, cordial or saline, according to the case. Sir C. Scudamore falls into the error of saying, "It is incumbent on us to persist in acting with freedom on the bowels from day to day, so long as the alvine discharges exhibit an unnatural character, more particularly as to darkness of colour, which marks a vitiated state of the biliary secretion;" &c. (P. 13.)

Surely patients who are taking mercury or colchicum, or both, cannot be expected to have natural stools: if purgatives are to be given to cure an appearance caused by purgatives, where is the medicinal cycle to end? This error has often been committed with regard to mercury, and is ably exposed in a passage of Dr. Armstrong's Lectures, which we quoted in our third number.

Mercurials are not to be given so as to produce salivation.

Diuretics are indicated by the deep colour of the urine; and the lateritious sediment which it deposits. Our author recommends a draught containing the carbonate of potash with the Sp. Æth. Nitr. and Sp. Junip. C. He also advises "the draught with magnesia, sulphate of magnesia, acetum colchici, &c., the formula of which will be found in my treatise." (P. 15.) This is not so well, Sir C. Scudamore, to send us to your treatise for the explication of the "&c.;" for it was an understood thing that the present "code of principia, or principles," was to supersede the treatise for practical purposes, and be the gouty man's Iliad in a nutshell.

Sudorifics are very useful. Tartar emetic may be combined with the aperients, or with saline draughts, or small and repeated doses of Dover's powder may be given. If it is difficult to cause diaphoresis, the body may be fomented with flannel wrung out of hot water, or with a large sponge. Much benefit is sometimes obtained from a vapour-bath, adminis-

tered in the patient's chamber.

Narcotics may be given at night, combined with sudorifics, as Battley's sedative liquor, with tartarized antimony; opium, with James's powder; or Dover's powder. The acetate and muriate of morphia are excellent remedies. Sometimes, if the inflammation runs high, opiates will not calm the pain, until one or more bleedings have been premised.

Colchicum. Sir C. Scudamore prefers the acetum colchici to any other preparation; "joining with it magnesia, or the carbonate, and usually, sulphate of magnesia, as I fully set forth in my Treatise," (again referring his half-crown readers to his twenty shilling book.) The dose is from twenty to ninety minims, equal respectively to about one and five minims of the wine; the colchicum wine being seventeen times as strong as the vinegar.

Our author thinks that the preparations of colchicum have been used far too freely; one or two fits of the gout may be safely cured by it, but not so a dozen; and, when the intervals between the attacks become shorter and shorter under the use of the remedy, its continual administration will ruin the finest constitution. The following instances will show the injurious effects of colchicum; but our readers will observe, that, in all of them, the patients undertook the management of their own cases.

"One gentleman, of strong frame, and of great original powers of constitution, constantly suppressed his gout with one or other of the strong preparations of colchicum; latterly attaching himself to the use of the wine. This practice at length brought on chronic inflammation of the mucous membrane of the stomach and bowels; and, under such disease, he pined and wasted, and gradually lost strength, and died.

"Another, also of excellent constitution originally, not yet fifty years of age, treated himself in the same manner, but with greater boldness, and gave occasion to a more acute attack upon the mucous membrane. The highest symptoms of irritation, affecting the stomach and intestines, arose: and, notwithstanding every exertion to arrest the disease, the fever and irritation wore out the injured powers of the constitution, and death took place in the course of a fortnight. This gentleman had been falling off in appearance, and flesh, and strength, for some months previously, under the influence of almost constant doses of the wine of colchicum. He was warned of his danger, but to no purpose.

"A third, approaching to his grand climacteric, a man endowed with a fine constitution, was so anxiously engaged in business, that he would not allow himself to be deprived of the means of procuring that quick respite from suffering and confinement, which the wine of colchicum afforded him. He had recourse to this medicine on every occasion, beginning with a dose of thirty drops; but by degrees so increasing it, that at length he found he could not relieve the symptoms with a smaller dose than 120 drops, which he commonly repeated on the following night. Even by means of these larger doses, he could not latterly postpone the return of gout for more than forty-eight hours! His altered appearance soon gave alarm to his friends, and had he not been restrained from this course

of proceeding, he would doubtless have fallen a victim. His health has been with difficulty brought to a state of amendment; but I hope that, by strict perseverance in proper measures, he will finally be restored.

"One gentleman took Reynolds' specific, in alterative doses, almost every night for a whole year. He became thin, sallow, weak, and nervous, under its influence, on such terms only opposing the return of gout. But see the sad sequel. At the end of the

fourteenth month, he died from hydrothorax!

"In another case, the patient, aged fifty-four, for many years subject to severe attacks of regular gout, had for the last two years treated himself with full doses of the wine of colchicum, always with the effect of immediately relieving the symptoms, but with the effect also of causing much shorter intervals between the fits. At length his general health declined; his appearance became greatly changed; he looked sallow, was wasted, and reduced in strength. His pulse was weak and irregular; his breathing short, and he was awoke in the night with starting up in bed under the immediate dread of suffocation; and had a troublesome cough. Upon examination of the chest, it was evident that water was collected in one cavity of the pleura. Other frightful symptoms came on, affecting the heart, and the signs of enlargement of that vital organ became very conspicuous. He had urgent palpitations; could not lie down in bed; was now and then delirious while sitting in his easy chair, and it was continually expected that he would die from suffocation, so difficult was the breathing on the least exertion. The pulse ranged from 120 to 150. General anasarca of the lower part of the body took place in an extreme degree, and, lastly, ascites. By auscultation, the action of the heart was heard over the upper part of the right side, and below the seventh rib on the left, and the bruit du sufflet (bellows' sound) and the rasp-file sounds, were strongly marked. From this deplorable condition he was surprisingly restored by an active plan of treatment, which my present limits will only allow me to describe in the most concise manner. It consisted of two or three small bleedings from the arm; a combination of elaterium, calomel, digitalis, colocynth, and opium; blisters over the heart, followed by the use of an ointment composed of iodine, hydriodate of potash, and mercury. This was afterwards used by diligent friction. The anasarca was relieved by acupuncturation. He gradually recovered from what appeared to be a hopeless state. On the discontinuance of the active measures, a caustic issue was made over the heart, and which is still kept up. Ten months have now elapsed since the patient has resumed an active attention to his affairs, as a nobleman's steward. Now the action of the heart is almost natural. The recovery is the most surprising of the kind which I have ever witnessed in the course of my professional life." (P. 28.

Our author observes, that the continued use of colchicum

produces chronic irritation of the mucous membrane of the stomach and intestines, loss of appetite, and other bad symptoms; and asserts, that none of these consequences ever result from the moderate use of the acetum colchici, in combination with other appropriate remedies; but we should think that the mucous membrane would be perfectly safe if the vinum colchici were administered in doses of from one to five minims, being the equivalents to those of the acetum colchici recommended by our author. It often happens, however, that the different preparations of the same remedy are not administered in equivalent doses. Thus one eighth of a grain of corrosive sublimate is a common dose; but two drachms of its solution are rarely given.

The following is a case of gout successfully treated without

colchicum.

"A gentleman, about fifty years of age, had been a complete martyr to gout for twenty years; and, latterly, rarely escaped an attack for more than six weeks. He was so disturbed in his nervous system by the influence of colchicum, after a few doses, however carefully administered, that he acquired a great dread of the medicine, notwithstanding that it invariably relieved the symptoms in a short time. In the investigation of the case, I found the strongest evidence of unhealthy action of the liver. The excretions were exceedingly unnatural, varying for the most part from the colour of black to olive green. The urine usually deposited pink or lateritious sediment, and always very abundantly when gout was present.

"I subjected him to a moderate but long-continued alterative mercurial course, with an active fluid purgative each morning for the first week, each other morning for the second week, and every second or third morning for the third and fourth weeks. When a gouty attack occurred, I relieved the symptoms very satisfactorily by means of opiates, sudorifics, and diuretics, in addition to the plan just mentioned. At a later period, I prescribed sarsaparilla with alkali; still directing a close attention to the state of the ali-

mentary canal.

"The whole course of treatment being brought to a conclusion, the patient left home for change of air, first going to the sea-side, and afterwards to an inland spot. He virtuously adhered to the strict plan of diet which was laid down for his observance; and such has been his reward, that, during the last six months, he has only been affected with gout twice in a slight degree, and the symptoms yielded favourably without any aid from colchicum. It is delightful to witness the happy change in this gentleman's appearance and constitution. He assures me that he has not enjoyed such feelings of health before within the last six years." (P. 38.)

In another case, " I was called upon to prescribe any means

of treatment I thought proper, with the exception of colchicum;" the patient's constitution having been broken down by the remedy. Alteratives, aperients, tonics, and change of air, were successful here likewise.

Sir C. Scudamore remarks that

"One of the most inconvenient consequences arising to the physician from the colchicum practice, as it may be termed, is the extreme reluctance of the patient to submit himself to the slower but more sure effects of regular treatment. Accustomed, as he has been, to liberate himself from pain and confinement in the short space of not many hours, he refuses his consent to measures which are attended with a continued confinement; but I hope that this mistaken calculation of advantages will cease to be made, and the truth come home to his mind, that there is no such short road to health, as he has been falsely led to imagine." (P. 42.)

Our author has used the veratria ointment with some success: it is not, however, to be employed at the beginning of an attack, but when the force of the disease has been reduced by general treatment. In one case where the strength of the remedy was gradually increased till the proportion of the veratria was twenty grains to the ounce of lard, "the patient finally declared that he derived very great relief and benefit from the remedy; but that it did not remove the tenderness, and what he called weakness, of the parts. The bursal enlargements, the distension of the tendonous sheaths, and the ligamentous thickenings, were evidently diminished by the application; but it appeared ineffectual towards restoring the use of the joints. In these circumstances, abundant friction with an embrocation, composed of tinct. opii, linim. sapon. compos. et liquor. ammon. acet. used tepid, had a superior and a very useful effect." (P. 49.)

This little book is rather carelessly written. At p. 6, for instance, we are told that certain unnamed ancients of a later date than Hippocrates and Aretæus speak of the use of calomel in gout; and, at p. 21, the author says, that "a few, but, indeed they constitute the large minority, are attacked with so

slight and manageable a degree of gout," &c.

The essay, however, with all its faults, is the production of a practical man, and this must serve as an apology for the length of our analysis. Des Convulsions chez les Femmes, &c.

On Convulsions in Women during Pregnancy and Labour, and after Delivery. By A. Velpeau, Surgeon to the Hôpital de la Pitié. Paris and London, 1834. 8vo. pp. 132.

M. Velpeau has long been distinguished for the determined and successful industry with which he has laboured at various branches of medical science; but he had yet to afford a proof of the remarkable facility he possesses, in giving to the profession the result of his labours. At a recent Concours in Paris, he was required, at a very short notice, to prepare a thesis on the subject of Puerperal Convulsions, and the really wonderful rapidity with which he furnished an excellent essay, abounding in well-arranged practical facts, and numerous illustrations from the best authorities, proved that his promptitude is equal to his perseverance. The work before us is an amplification of the thesis; and we shall at once proceed to impart to our readers the sum and substance of the author's opinions.

In the first chapter are discussed the different forms and

frequency of puerperal convulsions.

Experience teaches us, that women may be attacked during pregnancy, in the act of labour, and after delivery, with the same kind of convulsive disease. The apoplectic form is more uncommon, however, during pregnancy than during labour: the hysterical variety more frequent. Partial convulsions more generally occur before and after delivery, than at the time of childbirth. As in the unimpregnated female, the convulsions which occur during pregnancy may either be general or local. Either one or all the limbs may be affected; the face, or some other part of the body, may suffer alone, or all the locomotive muscles may be simultaneously convulsed. The voluntary muscles are most subject to convulsions; but, in some cases, the viscera are not exempt. Levret,* for example, mentions a species of convulsions, which attacks only the solid muscles and the sphincters of hollow muscles. Thus, as is known to every medical observer, the pharynx, the œsophagus, the stomach, the intestines, the uterus itself, the heart, and particularly the diaphragm, are sometimes attacked with violent convulsive action. Partial convulsions, however, are by no means common; and we agree with M. Velpeau in the belief that many of the examples that are recorded might fairly claim some other denomination. As such a form of the disease is rare, well-authenticated instances of it are propor-

Art des Accouchemens, &c. troisième Ed. p. 233.

tionately interesting. We, therefore, give the following case, which was communicated to M. Velpeau by M. P. Dubois.

A woman, about the fifth month of pregnancy, was attacked with a very singular convulsive affection of the abdomen. The parietes of the belly contracted with so much violence, that the uterus was pressed into the pelvis. Immediately afterwards, this organ suddenly resumed its former situation, rebounding like an elastic ball thrown upon the ground. Irregular contractions also took place in the groins, the epigastrium, and the umbilical region, which appeared to depend upon spasmodic contraction of the viscera as much as of the ventral parietes. The patient recovered, and she did not miscarry.

Denman, we may state, mentions a somewhat similar fact. He says,* that, in a few cases, he has known the action of the abdominal muscles so regular and strong, that the whole volume of the uterus has been heaved up and down, alternately, in such a manner, that it was scarcely possible to distinguish between this strange succession and the proper action of the uterus; yet without any dilatation of the os uteri. The viscera alone are more frequently affected with these morbid contractions. The following is a remarkable case.

A female, aged twenty-two, of a rigid and nervous constitution, was delivered naturally, of her third child. She attempted to get up and work on the seventh day after labour; but she was compelled to return to bed, on account of severe pains in her belly. On the tenth day, she was alarmed at certain movements which she felt in the abdomen, and which increased every moment in violence. M. Velpeau was now consulted, and was as much astonished at what he witnessed as the patient herself. He saw, through the abdominal parietes, a sort of moveable ball, which traversed every part of the belly; sometimes it moved towards the pelvis; then to the groins; then to the navel. This ball was sometimes changed into several projections, which rolled about the abdominal cavity with a noise; the parietes of the belly always preserving their normal laxity. The patient was quickly impressed with the belief that she had an animal in her body, and that she was "vouće à l'enfer." Her mind gave way, and she became mad. She was admitted into the hospital at Tours, and died two years afterwards; the singular movements above described never having entirely ceased. Upon dissection, the peritoneum and muscles were found as black as ebony, "quoique sains"! in the hypogastric region. The digestive organs healthy. The uterus was thickly studded with fibrous tumours. One of the ovaries had degenerated into a multilocular cyst, and the corresponding Fallopian tube presented a similar appearance. The brain, lungs, and heart, were healthy.

Denman's Midwifery; edited by Dr. Waller; p. 192.

Smellie and Plenck* assure us they have found the vagina so contracted by convulsion as to prevent the exit of the child. Halma Grand+ and Mondiere‡ say that they have found the vagina so contracted as to benumb the hand of the practitioner during the labour. "But it is not clear that some mistake has not been committed in these cases."

Partial convulsions of the uterus are most interesting to the accoucheur, and examples of this form of disease have been frequently witnessed, during pregnancy, at the time of labour, and after delivery. M. A. Menard mentions an instance, in which the uterus assumed the form of a gourd. M. C. Baudelocque and Deneux relate another, in which the womb rose and fell, and was carried first to the right and then to the left, with surprising force. M. Ed. Petit** affirms, that, in the case he saw, the convulsions of the uterus were so violent, that at each moment it was precipitated towards the vulva, and that he was obliged to support it with his fingers, to prevent its expulsion. If we admit that a little exaggeration may enter into these details, still the facts have been recorded by contemporaries of too much character to justify our disbelief in their statements.

Convulsions of the uterus during the act of labour are more easy to comprehend, as, at the time of the expulsion of the child, each uterine contraction partakes of a convulsive character; the contractions sometimes pervade the whole of the organ, but generally only one portion of it, especially the cervix, either at the vaginal or uterine orifice. After the delivery of the child, too, we often have spasmodic action of the uterus,

impeding the exclusion of the placenta.

Varieties of Puerperal Convulsions. As puerperal convulsions present different phenomena in different cases, which resemble other convulsive affections that attack men, and women who are not pregnant, various terms have been applied by writers to mark these distinctive forms of the disease. Thus, mention is made of the tetanic, cataleptic, hysterical, epileptic, apoplectic, and choreal. Dr. Merriman++ speaks of puerperal convulsions as always assuming the appearance of epilepsy; and this we believe to be the most common, but

```
Art des Accouchemens, p. 122. Miguel, p. 156.
† Gaz. Med. de Paris, 1831, p. 323.
‡ Des Rupt. de l'Uterus. Mem. de la Soc. d'Emulat. 1834.
§ Transact. Med. t. iv. p. 246.
¶ Thése sur les Convulsions; &c. n. 84. Paris, 1822.
¶ Miguel; p. 108.
• Bibliot. Med. t. xxix. p. 171. Baudel. Th. p. 82.
† Synopsis of difficult Parturition; p. 139. 4th Edit.
```

certainly not the only form, of the disease. Vogel, too, regards it as an acute epilepsy. Burns* asserts, however, that "puerperal convulsions are quite different from epilepsy;" and that the most frequent species is of the nature of "eclampsia, or of tetanus, which occurs a hundred times, for once that the others appear." This by no means accords with our own observation. Dewees, who wrote especially on the disease, in 1818, retains three forms, the epileptic, hysterical, and apo-

plectic.

M. Velpeau agrees with Mdme. La Chapelle, that the convulsions of pregnant women differ in most cases from either of the above-named diseases, from which other writers have drawn the titles of the varieties of puerperal convulsions; and he thinks, with Desormeaux, that it is better to use the term Eclampsia, unless that of Dystocia Convulsiva, employed by Dr. Young, should be preferred. Menard states that the aura epileptica generally precedes eclampsia; but M. Velpeau denies the accuracy of this opinion: and he further states, that it is proved by a crowd of facts, (and one, the case of a lady, fell under his own observation,) that pregnancy repels or suspends the paroxysms of simple epilepsy. The great use of a term is to convey so definite a meaning that no one can misapprehend it: now we fear that many readers will not know at all what eclampsia means; while others will be aware that it is one of those numerous terms, whose signification has been so altered at various times, by different nosologists, as to leave us in great doubt as to what is really implied by it. \(\bar{1} \) In every point of view, therefore, we should prefer the Dystocia Convulsiva of Young.

We gain no very satisfactory information as to the frequency of puerperal convulsions, in a given number of pregnancies, by consulting the different statements that have been published; so greatly do they vary. It appears highly probable, however, that in some years, and in certain states of the atmosphere, the disease occurs more frequently than others. La Chapelle tells us, and other writers confirm the fact, that, at the Maternité, it sometimes appeared as an epidemic, and that one woman was rarely attacked without other cases speedily following. The period of its greatest frequency is incontestably the time of labour; not at the beginning of the parturient

Midwifery; p. 483. 8th Edit.
 † Essay on Puerperal Convulsions.

[†] Pratique des Accouch. t. iii. p. 16. § Dict. de Med. t. vii. p. 292. || Transact. Med. t. iv. p. 245.

^{||} Transact. Med. t. iv. p. 245.
| Vide Dict. des Sc. Med. t. ii. Art. Eclampsia.—Rev.

process, nor at the end of it, but during the long period that divides the two. Puerperal convulsions, in the strict acceptation of the term, rarely occur before the sixth month of pregnancy, and it is correctly stated by Burns* that the convulsive attacks which occur during the four first months of uterogestation, assume the character of hysteria, and cause but little anxiety.† Exceptions occasionally arise, however, to this very general rule. A young woman, for example, was attacked with convulsions in the fourth month of pregnancy and the case ended fatally. Willis mentions a similar instance.‡ After delivery, too, this disease is still less frequent. In thirty cases that occurred at the Maternité, not one took place after the birth of the child.

After these preliminary observations, M. Velpeau gives a brief practical detail of twenty-four cases: some of them occurring during pregnancy, and others during and after labour.

The causes of Eclampsia—we retain the term employed by M. Velpeau—are very numerous, and may be divided into the predisposing and occasional. Women of a strong plethoric habit and rigid fibre, with an animated countenance, and short neck, and those also who menstruated profusely, and are of a nervous, delicate, and irritable frame, of youthful age, and in first pregnancies, are more exposed to the disease than The cases related by M. Velpeau prove, however, the accuracy of the general opinion that the disease not unfrequently occurs in the second, third, fourth, and even sixth pregnancies. In one case, mentioned by Dumont, the patient was attacked in her eleventh pregnancy. Particular states of the stomach and bowels appear also to favour the development of convulsions; and hence, no doubt, the partiality of many practitioners for emetics and purgatives in their treatment. Velpeau himself is inclined to confine this cause within very narrow limits. Œdema of the lower extremities is another cause of eclampsia, that has attracted the notice of practical men; and M. Velpeau and Mdme. La Chapelle confirm the general opinion.

During pregnancy, the great modifications which conception causes in the whole nervous system of many females evidently

[·] Loc. cit. p. 238.

[†] Our practical readers will agree with us that the following declaration of Jörg's is very remarkable from so experienced and close an observer. "Nie habe ich aber die Hysteriean Schwangern und Säugenden wahrgenommen. Krankheiten des Weibes; p. 255. Leipzig, 1821.

[‡] Encyclop. Méth. t. ii., p. 248. § Journal Général; t. iii. p. 482.

[|] Loc. cit. t. iii. p. 8.

predisposes them to convulsive attacks during the early months of utero-gestation: but, then, the convulsions are purely nervous, and rarely present the characters of true eclampsia. The suppression of the menses, which necessarily retains in the blood certain materials that were destined to be expelled, increases the irritable disposition of pregnant women, in the very early months of pregnancy, when the product of conception requires but little vascular support from the mother. The uterus, gorged with blood, becomes the seat of important actions, and reacts powerfully upon the whole economy through the nervous system. The vomitings and palpitations, which the slightest causes produce, prove how easily convul-sions may be produced. The volume which the uterus acquires at a later period of pregnancy, gives rise to still more striking derangements. The pressure inflicted upon the blood-vessels and nerves of the pelvis, and even upon the aorta, produces such changes in the circulation and transmission of the nervous influence, that we cannot be surprised at local congestions and cerebral excitement.

During labour, eclampsia is rendered likely, in M. Velpeau's opinion, by extreme distention of the uterus, and by the obstruction which the fluids must experience in passing through the organ; by rigidity, and spasmodic contraction of the cervix, excessive sensibility of the whole of the womb; or by a bad position of the child, or any mechanical impediment, which may retard delivery. The general irritation communicated to the whole system during the expulsive period of labour

easily passes into general or partial convulsions.

Immediately after labour, the woman remains under the influence of as important modifications as during the act of labour. The quick depletion of the abdomen suddenly changes the locality of all its viscera. The blood, which before traversed with so much difficulty the inferior parts of the aortic system, now rushes through in full streams, and with the more freedom as the viscera are now unsupported. Pregnancy and labour excite the encephalo-spinal system by determining to it an increased quantity of the vital fluids. Delivery disturbs the functions of this important apparatus, by depriving it too suddenly of its natural stimulus; and, after the general disturbance produced by gestation and labour, the natural tendency to restore the equilibrium is not excited without giving a new shock to the nervous power.

The occasional causes of eclampsia we shall not formally notice. Many that enter into the list of systematic writers are more imaginary than real; in fact, whatever circumstance

happens to precede the attack is noted as the occasional cause of the disease, although it is quite certain that, in many cases, no satisfactory reason can be assigned for its occurrence.

Symptoms and Progress of Eclampsia. In some women, says M. Velpeau, (we should at least have said, in most,) the paroxysm is announced by various premonitory signs, as great heat of the head, giddiness, confused mind, impeded motion, and uneasiness of the limbs; a vacant, or frightened look; turgid conjunctiva, or turgescence of the whole face; swelling of the neck and face; headach; imperfect speech; irregularity of pulse; convulsive movements of the muscles; subsultus tendinum. A woman, who was admitted into the Maternité with these premonitory symptoms, was thought to be intoxicated by the students. Very often, however, the disease makes its attack suddenly and unexpectedly, and at once is marked by the most alarming symptoms. Deleuryet and Deweest are wrong, in M. Velpeau's opinion, in their belief of the constant occurrence of the preliminary symptoms. We do not contend that the paroxysm is always to be thus anticipated; but our own experience teaches us the truth of the general doctrine, that it very rarely happens, if we have the opportunity of fair and full inquiry, that some symptoms may not be detected which usher in the fit of convulsions. The pain in the head, upon which Dewees particularly insists, and which Puzos and Hamilton had before noticed, M. Velpeau admits as a frequent premonitory symptom. Dewees remarks, "that, the longer the premonition, the milder the attack appears to be; and on the contrary. The most suddenly fatal case we ever remember to have seen, was where the patient suddenly cried out "my head! my head!" convulsions instantly ensued, of which she died in a few hours."

Denman, and other writers, attach much importance to pains in the stomach; and, in his opinion, when convulsions are thus announced, they are more severe than when they are preceded by pain in the head. Both these symptoms have been observed by M. Velpeau; but in most of his cases they were wanting. It is singular that Chaussier and Mdme. La Chapelle, who drew their inferences from the practice at the same establishment, have given contrary opinions as to the

J. F. Osiander states that he has seldom observed a tumid state of the face and hands wanting as a premonitory symptom.—Rev.

[†] Art. des Accouch. &c. p. 136. ‡ Midwifery, p. 498. "Convulsions (puerperal) are all preceded by symptoms which denote their approach." Chaussier thinks they are scarcely ever wanting altogether.—Rev.

frequency of the precursory signs of puerperal convulsions. We have already stated that the former asserts they are almost always present: the latter* says they are frequently wanting. Some women, says M. Velpeau, feel a weight in the hypogastrium, or hardness, or even a painful sensation, even weeks, or days, or some hours, before the attack. In three instances, he has known this symptom exist in a strongly marked manner, and he thinks it has been too much neglected. If the hand is laid upon the uterus, through the parietes of the abdomen, it is felt in a state of tonic contraction, firm and sensible upon the least pressure. The symptoms of a violent paroxysm are most graphically described by the author. The duration of the fits is as various as its intensity. It may pass off in a few minutes; it may last an hour or more; and even twelve or twenty-four hours may elapse before the patient regains her consciousness; and, in some cases, if coma does not take place, the loss of consciousness may be prolonged for several days, and still the patient promptly and perfectly recover. The paroxysm is generally repeated; and the succeeding attack is often indicated, according to Croft and Merriman,+ by decided slowness of the pulse. M. Velpeau has noticed this curious phenomenon. Sometimes the paroxysm assumes all the characters of apoplexy, and death ensues. In a case we saw for Dr. R. Lee, the patient, a very fine young woman, of a full plethoric habit of body, presented during the fit so completely the ordinary appearances of profound apoplexy, that no practitioner could have distinguished between the two diseases. She died in a few hours, although the treatment adopted was, we believe, judicious; it was certainly promptly applied. In some instances, after the cessation of the paroxysm, certain functions remain perverted. The sight, hearing, or smell, or some of the intellectual faculties, may be injured. Internal ruptures, local extravasations of blood, have also been caused. Dislocations of the jaw have taken place.

After having described the more ordinary and epileptic form of the disease, M. Velpeau briefly notices the distinctive symptoms of the more uncommon varieties; as the hysterical,

the tetanic, and apoplectic.

Termination and Prognosis. Puerperal convulsions may terminate either in health, by the death of the patient, or by the production of some other disease. We may expect a favourable result when the paroxysms become more and more distant, or by their becoming shorter, even if their frequency

[·] Loc. cit. t. iii. p. 8.

[†] Loc. cit. 4th Edit. p. 140.

The torpor and coma gradually subside, and the woman appears to rally from a long disease. On the contrary, if the paroxysms increase in length and severity; if the comatose symptoms are more decided than the convulsive phenomena, death is to be feared; and the fatal event may take place after different durations of the disease, varying from half an hour to many hours. It appears, from abundant testimony, that eclampsia has frequently produced rupture of the Deneux* appears even to admit that most ruptures of the uterus depend upon partial convulsions of the organ. The nature of the symptoms evinces the milder disease that sometimes results from the convulsive attacks. Hemorrhage within the brain is the most to be feared; and hence, no doubt, the reason why the disease has by several writers been confounded with apoplexy. We do not believe that any case of puerperal convulsions, if seen from the commencement, could be mistaken for apoplexy, but, as we have before had occasion to remark, all the symptoms of the latter malady sometimes arise in the progress of the former; and then, of course, the distinction between them is lost. The sudden determination of blood to different viscera, and the violent and unequal pressure to which different organs are exposed during the convulsive struggles, expose the patient also to many congestions and inflammations. Mdme. La Chapellet states that many women, affected with eclampsia, die afterwards of peritonitis; and M. Ciniselli‡ has recently published a case which confirms the opinion of this distinguished authoress.

The Prognosis is generally unfavourable both for the mother and child. Mdme. La Chapelle confesses that, in spite of the best and most decided treatment, about half the cases at the Maternité terminated fatally. Hunter and Lowder express the same opinion. Dr. Merriman, whose personal experience upon this point is not given by M. Velpeau, although most of the authorities mentioned by him are quoted, states that, "in modern practice, the proportion of deaths is by no means so great." In forty-eight cases, attended by Dr. M. in private practice or in consultation, thirty-seven women recovered, and eleven died; and be it observed, too, that Dr. M.

Miguel, op. cit. p. 108.

[†] Loc. cit. t. iii. p. 21.

[‡] Annal. Univers. de Med. t. 49, 471.

^{\$} Loc. cit. t. iii. p. 18.

[|] Loc. cit. p. 139.

¶ Burns says (Midwifery, 8th Edit. p. 489,) "If the practice be prompt and vigorous, the generality of patients recover from puerperal convulsions!" We wish the learned professor had given a circumstantial account of the evidence upon which this opinion is founded.—Rev.

says, in some of these cases "the plan of treatment was not always so early and effectually adopted as I could have wished." The result of these cases is highly creditable to Dr. Merriman. The disease is less fearful, M. Velpeau states, cateris paribus, during than before labour; and, as delivery is frequently the only means of relieving the symptoms, it is evident that the danger of the convulsions must therefore be in direct proportion to the difficulty of effecting delivery. During labour, eclampsia sometimes terminates by the sudden expulsion of the child. When the disease attacks nervous and hysterical females, it is less hazardous than when it occurs in plethoric subjects. The more apoplectic the character of the attack, or its progress, the greater the danger. The danger to the child is still greater than that of the mother: it frequently dies in the midst of the convulsive struggles. In artificial labours, even at the full period, the child generally dies when the mother is convulsed; but, if the delivery can be promptly effected, the child may be saved.

Appearances after death. Our post-mortem examinations are far from always accounting satisfactorily for the severity of the symptoms during life. The substance of various statements from the best authorities upon this subject confirms almost entirely the opinion of Mdme. La Chapelle, "that, if apoplexy is not combined with the attack, the organic alterations are not in relation to the intensity of the symptoms."* It is to be lamented that the spinal marrow has not been more frequently examined, that we might be enabled to ascertain the accuracy of the opinions expressed by Burns, + and others,

as to the pathology of the disease.

Treatment. No one mode of treatment can be expected to succeed in so variable a malady. With respect to antispasmodics, M. Velpeau states that, if they are not proved to be serviceable in the epileptic variety of eclampsia, they certainly are in the hysterical; but they rarely are sufficient alone, even in this mild form of the disease. They moderate rather than dispel the paroxysm, and their efficacy must not be too much relied on, even in partial convulsions. Large doses of camphor, to which some practitioners are so partial, M. Velpeau would rarely administer except in clysters.‡

Narcotics. By most practitioners, the use of opium is altogether condemned in this disease. Bland, however,

6 Observations on Parturition; p. 138.

[·] Loc. cit. t. iij. p. 25.

[†] Midwifery, p. 48. ‡ Dr. Copland and others speak very favourably of the effects of camphor. See Copland's Med. Dict. art. Convulsions, 433.

regards it as an heroic remedy, to which no other can be pre-We believe, upon this very important practical point, that M. Velpeau is quite correct in thinking that both parties have carried their opinion too far. "Reason and analogy, rather than experience, at first indicated the employment of opium. Its reputation of favouring cerebral congestions induced its opponents to reject it from the treatment of a disease which is frequently characterized by that condition of the brain. But, in fact, it merits neither the abuse nor the eulogies that have been lavished upon it; it is an auxiliary that ought not to be neglected, when there is neither stertor nor comatose symptoms." We apprehend that no rational practitioner would ever attempt to relieve a convulsive disease by opium, if it were attended by either stertor or coma, however slight might be the degree. Hysterical eclampsia, and all convulsions originating in spasm, distention or irritation of the uterus, have appeared to M. Velpeau to be relieved by opium, after venesection had been practised, or when it was not indicated. In common with the prevailing opinion, he looks upon this remedy as useless, and even dangerous, in the apoplectic, or even epileptic forms of the disease. He greatly prefers the preparations of morphia, especially the powder, in doses of a quarter or half a grain every two or three hours, in a glass of cold water, when this class of remedies is deemed advisable. "They are less likely to produce congestions, and are quite as efficacious as sedatives, as the extract or tincture of opium." He thinks well of the local application of opium, in the form of pomade, to the cervix uteri, during labour, in partial convulsions of the In general convulsive attacks this mode of applying the remedies would be of little avail. Laudanum has been also injected into the uterus, but we want facts in support of the practice; and the same objections apply to it as to the internal exhibition of opium. Belladonna has also been employed in puerperal convulsions both internally and locally to the os uteri; and it appears, from the evidence of Evers, Chaussier, Conquest, &c., with occasional advantage.

Evacuants and Emetics have been much eulogised "They can rarely be given during labour, unless the convulsions appear to depend upon an overloaded stomach; but I would willingly have recourse to them during pregnancy and after labour, if the symptoms appeared to have the least connexion with derangement of the digestive organs, especially the stomach, whether the attack partook of the epileptic or apoplectic form. I should be more averse to the use of these remedies in

hysterical convulsions." (P. 34.)

Purgatives. Of these Dr. Merriman thinks very highly:*
M. Velpeau considers them less efficacious because their operation is slower than emetics. The former may, however, be given with less hazard than the latter. Stimulating injections "can neither be very prejudicial nor very useful." To this

opinion we find Dr. Copland is opposed.+

Bleeding is the remedy principally relied upon by most practitioners: it is the only one in which Mdme. La Chapelle has much confidence. Gooch, too, we may add, is thus reported to express himself in his Lectures: "Give me the lancet, and deprive me of all other remedies, and I will do more good with it singly, than with all others, deprived of this, put together." The abstraction of blood has been frequently and effectually employed to prevent an attack of puerperal convulsions, when the premonitory symptoms warned the practitioner of the impending danger. Still we think-nay we are sure, that M. Velpeau is quite justified in hesitating to admit the assertion of Dr. Davis, Deleurye, &c., who declare that bleeding to the amount of forty or fifty ounces will always prevent the attack; and that, if convulsions occur during labour, it is a slur upon the skill of the practitioner. difficult the proof must be. A woman, apparently threatened during her pregnancy with convulsions, is freely bled. No convulsions take place; but it would be very bad logic to declare positively that they would have taken place, if the lancet had not been used. We are very far from denying the frequent propriety of bleeding as a preventive measure, but we cannot admit the infallible success of the remedy; for convulsions in the puerperal states may occur from great exhaustion, from want and inanition, and losses of blood; and, in such instances, too, the convulsive struggles are as severe, if not more so, than when a plethoric and robust patient is attacked. Chaussier himself, one of the warmest advocates for bleeding, either as a remedial or preventive measure, in puerperal convulsions, gives the following case. A young female complained of severe pain in the head in the ninth month of her first pregnancy: she was largely bled. Two days afterwards, she fell into violent convulsions, and died in twenty-one hours. curative measure bleeding has been had recourse to in every form, and experience tells us that sometimes the remedy fails,

[·] Loc. cit. p. 143.

[†] Loc. cit. p. 435.

[‡] Loc. cit. t. iii. p. 29.

[§] Compendium of Midwifery, by Skinner; p. 245.

Des Convulsions des femmes enceintes, p. 8.

sometimes it succeeds, or at least the patient recovers. In two instances, we have ourselves seen it fail to make the slightest impression upon the disease; in both the patients died. Bleeding from the veins of the feet has had many partisans on the continent; but this mode of depletion has now nearly fallen into disuse. Blood should be drawn, in preference, from the jugular vein, or from the arm. Cupping may be employed as an auxiliary, but rarely as a principal agent. Many practitioners recommend very copious bleedings. quantity of blood that some do not hesitate to abstract appears, indeed, alarming. Dewees, for example, speaks of a patient who lost ninety-seven ounces in seven bleedings; and of another, who recovered, and who lost 120 ounces in the first six hours, and 140 ounces altogether.* M. Velpeau states some facts which prove the danger of these enormous bleedings. Much must, of course, be left to the judgment of the practitioner; but we cannot forbear from remarking, that a patient may be bled into convulsions or apoplexy, as well as out of them. He would, with Cruveilheir, proscribe so free a use of the lancet, and recommends, in preference, smaller and repeated bleeding, according to the indications. And, lastly, upon this point M. Velpeau questions whether general bleeding justifies its frequent employment. From the appearance of the symptoms, we should answer in the affirmative; but our confidence must be shaken to a certain extent, when we find that Mauriceau and Mdme. La Chapelle, who bled largely, lost half their patients; whilst Dr. Merriman, who bleeds much less, has rescued a much greater proportion.

It is not to be supposed that rather mild cases of eclampsia would always terminate fatally without bleeding. Case 10 and 15, related by M. V., are proofs to the contrary; but in these instances, we must add, the disease appears to have assumed more of the hysterical than of the severer forms of the disease.

Revulsive remedies, as sinapisms, blisters, dry-cupping, &c., have also occasionally a place in the treatment. Cold aspersions upon the face, of which Dr. Denman speaks so highly, are, in the opinion of the author, of use only in the hysterical form of eclampsia. But iced water, applied to the forehead and head, he thinks highly of; and his opinion is confirmed by many of his most distinguished countrymen. Here, too, we look upon cold applications to the head as ne-

[•] M. Velpeau, by mistake, misquotes Dr. Dewees. Dr. D. states that the patient lost 140 ounces of blood altogether; not "cent vingt onces dans les six premières heurs, et cent quarante onces ensuite." This would be 260 ounces altogether. See Dewees's Midwifery, p. 506.—Rev.

cessary and useful, especially where there is much pain in the head and cerebral irritation.

Besides these general remedies, eclampsia requires also other resources, according as it occurs during pregnancy, labour, or after delivery: but, for M. Velpeau's opinions upon the modified treatment required in these different conditions, we must refer to the work, the perusal of which will amply repay any student or practitioner who wishes to become acquainted with the opinions entertained by the best authorities respecting the pathology and treatment of one of the most interesting, formidable, and (may we not still add?) obscure diseases incidental to puerperal women. The condensed yet lucid style, and impartial manner, in which M. Velpeau has collected information from a great variety of sources, would alone render his monograph very valuable. It is additionally so, because he has freely incorporated his critical remarks and the results of his own experience.

Asthma, its Species and Complications. Illustrated by Cases, and Plates coloured from Nature. By Francis Hopkins Ramadge, M. D., &c. London, 1835. 8vo. pp. 360.

"There is no book so bad," quoth an optimist author, "but that something may be learned from it." This is strangely exemplified in the present instance. The lesson to be derived from it, however, is not medical, but moral, and relates to the conduct of life, not to the curing of asthmas. The young student will learn from Dr. Ramadge's book, far better than if it were a professed lecture against carping, how dangerous it is for a man of mediocre powers and attainments to separate himself from the rest of his brethren, to snarl alike at the successful living and the illustrious dead; and, without the energies of a son of the desert, to enact the Esau, with his hand against every man, and every man's hand against his.

Seen through the jaundiced medium of Dr. Ramadge's misanthropy, Heberden was a superficial fellow; Dr. Bree's pathological views are meagre and irrelevant; Dr. Withers was a remarkably mistaken man; Baillie no anatomist; Radcliffe an empiric; Dr. Latham was not industrious; and Sir Henry Halford, says our unfortunate author, is quite unfit for the place of President of the College of Physicians. But our readers will enjoy these oddities in an unabbreviated form.

Here are a few of them.

"Perhaps, however, we ought to charge this want of knowledge on his 'most respected preceptor,' the elder Latham, whom he compliments with a degree of eleemosynary gratitude. It was doubtless charitable and generous in him so to do; since it is to be presumed from Dr. Latham's work on Diabetes, as well as his holding a situation in a hospital, to an appointment in which none are eligible who have not derived their medical, or, more correctly speaking, non-medical knowledge from the old Universities, that his pupils could not have been over and above enlightened by the worthy doctor's industrious efforts. Industry, indeed, like every other word, has its signification limited by the ideas, and habits, of the person pronouncing it.

"In the work above cited on Diabetes, Dr. Latham boasts of retiring on the well-earned fruits of industry: and, as a specimen of his notions on the subject of industry, he writes a treatise on the complaint after having barely investigated 'a case or two' by dissection. This he deemed enough, and, I presume, felt fatigued by the exertion. In addition to this, he had doubtless imbibed a distaste to morbid anatomy from the system of education pursued

at Oxford and Cambridge." (P. 32.)

- "I have quoted these instances from Heberden, as I probably shall do from others, rather with a view of showing that I have not neglected the writings of those whom, as a member of the College of Physicians, I am bound to reverence, than for any high opinion of their science. A note-book like Heberden's proves his attention to appearances, but throws no light on causes. However, like the cabinet of the virtuoso, the curiosities the possessor cannot explain, others may. I allude to the species of writing, not to Heberden. His fame was well-earned, for he wrote in Latin." (P. 58.)
- "Dr. Bree gives us many such; and what he relates, as coming under his own experience, is far from unexceptionable. Indeed, his pathological views are altogether meagre and irrelevant; those cases, which he adduces as belonging to the uncomplicated form, being merely symptomatic." (P. 96.)
- "This same Galen of the North [Dr. Withers] gives an amusing specimen of his skill in conducting pathological enquiry, in the examination of the body of one John Strickney. All that he appears to have found was water, water in the abdomen, water in the chest, water in the pericardium; and, had he opened the cranium, he would doubtless have found water there also!
- "On the whole, he appears to have been just as fit for the situation he held of Physician to a County Hospital, as many of our metropolitan ones, (i. e. up to a very recent period,) who, whatever else they might do, abstained as religiously from meddling with a dead body as if they were converts to the Hebrew faith." (P. 100.)
- "Indeed, an ædematous state of the lungs, which both Doctors Baillie and Blackall consider of uncommon occurrence, is, on the contrary, very frequently seen on dissection. Scarcely an individual dies of chronic disease, with swelled extremities, whose lungs are not more or less ædematous. I fear the first gentleman derived

what he knew of morbid anatomy from inspecting the museum of his uncle, Dr. Hunter, rather than from observations made on the human body: a bad method for the greatest morbid anatomist our country has produced, to pursue, but one well-calculated to induce his ignorance of that anasarcous condition so generally recognized by the practical pathologist." (P. 113.)

"Having alluded to the case of the above monarch, I may still further observe that he was troubled with an unusual quantity of rheum or phlegm, and it was to lessen this that Radcliffe directed his attention; a successful empiric, whose gold-headed cane, after having passed through the hands of several other physicians, to whom the old proverb, 'great cry and little wool,' may be fairly applied, since they all enjoy celebrity, without having effected much to forward the interests of science, was not long ago deposited in the library of the College of Physicians. From this censure I must except the last, Dr. Baillie; who, if he had examined the human body with the same attention he devoted to the preparations of his uncle Dr. Hunter, might have produced something worthy of posterity." (P. 194.)

Source of Dr. Armstrong's errors. "Different balsams have been lauded in this disease, and especially that vulgarly called the balsam of copaiba. This has met with several admirers, and the late Dr. Armstrong, in particular, has been loud in its praise. He wrote, however, I apprehend, from views chiefly gleaned in private practice; and such must ever labour under the defects inseparable from insufficient data. Copaiba is usually very revolting to the stomach, and is far from being certain either to soothe the cough, or alter the expectoration." (P. 251.)

Professional humanity. "So easy, indeed, is it of proof to the morbid anatomist, that although it seems surprising to me it should have escaped the activity of modern research, previously to my recognition of the fact; yet, when once pointed out, I cannot help thinking that to overlook it argues a blindness as complete as that of the Homeric Cyclops. I was about to say that this mental darkness was unaccountable; but to him, who has gained experience in humanity, professional humanity, it is no riddle." (P. 346.)

At p. 235, et seq. there is an important, and almost miraculous case, which we must endeavour to abridge. Dr. Ramadge thus begins the history.

"Having the privilege of visiting and witnessing the medical practice of the — Hospital, in virtue of a sum of money, for which I cannot say I ever had value received, I was, in flattering terms, requested by one of the physicians, in the presence of some of his pupils, to give him my opinion of a patient, who was suffering under catarrhal asthma, with pituitous discharge to a great extent." (P. 235.)

Our author told the physician of Blank Hospital that he

was treating the patient quite erroneously. Though this salutary rebuke was no doubt expressed in the dulcet strain, and with the hushing gentility with which we have seen that Dr. Ramadge deals forth his aphorisms, the mistaken doctor, "who was indebted for his situation, not so much to his talent, as to his happy stars," changed his compliments "into affected contempt." The patient, of course, got worse and worse, withdrew from Blank Hospital, barely alive, and applied to our author.

"When I saw him at this period, his countenance was bloated, anxious, sub-livid; his lips, nose, eminences of the cheeks, and lobes of the ears, were perfectly blue; his breathing high and painfully laborious; he could with difficulty support himself on his legs, which were quite dropsical. His cough and expectoration were almost incessant. He looked as if he had been long a stranger to sleep; and I found, indeed, that the dread of suffocation prevented his giving way to 'tired nature's sweet restorer;' and that, when exhausted by sufferings and watching, he snatched a few minutes' repose, he would suddenly be awakened by the most fearful dreams." (P. 237.)

Putting physicians who owe their situations to their "happy stars" out of the question, we should think that even a good average doctor would scarcely be able to keep a moribund of this kind alive for forty-eight hours. Not so Dr. Ramadge: he cured the man perfectly; told him how to secure himself against a relapse, and, above all, enjoined him to be on his guard "against the ingression of cold." Nor was this all: "I dismissed him with a recommendation to show himself to his former medical curator at the —— Hospital. I could do no less in return for the urbanity with which that person had treated me."

Why have we no record of the interview between the man of happy stars and his resuscitated patient? the doctor must have looked as blank as his hospital.

A trial however is recorded at p. 303, compared to which this case, in our humble opinion, is a mere fleabite. A banker having died suddenly, the Rock Insurance Office refused to pay their policy, on the plea that the deceased had committed suicide. More than one hospital surgeon gave it as his opinion that he had taken poison. And how do you suppose, L. B., that the question was settled the other way? Was Dr. Ramadge obliged to go down, and read the jury a lecture on imaginary poisoning? By no means: a Deus ex machinâ is, after all, a clumsy mode of solving difficulties. A former pupil of the doctor's did the job, and as juries do not number

but weigh witnesses, the hospital surgeons kicked the beam,

and the executors pouched the cash.

The hasty reader, who skips and skims, and, arriving at p. 310, finds the running title to be still "Asthma complicated with organic lesions of the heart, &c." must not suppose that the page is really occupied with so uninteresting a subject: it is the evening meetings at the College of Physicians, and the fitness of Sir H. Halford to be president, which are discussed in that and several subsequent pages. Thus, our Timon tells us that "such meetings may tend to introduce some half-dozen sucking favourites of the Galenical Sultan's to promising patients, and gratify personal vanity at the same time. The non-professional hearer will take oratorical common-places for the dicta of an Hippocrates, and the initiated will be wiser than to gainsay his επεα πτεροεντα." (P. 312.)

We must request the College, however, not to take all this too much to heart: our misiatrous author was only joking. The grave and heart-rending part comes directly afterwards: "But, seriously speaking, is this a state of things that ought to exist," &c. You see, gentle reader, how pleasantly our misanthrope can relax; how graciously he smiles, like Apollo with his arrows thrown away. How elegantly he applies an old adage! "The old proverb, which, in its Latin dress, "Quid nocet alteri, alteri juvat," does not look amiss; but which, in its English garb, is not quite the thing for 'ears polite,' although equally as true,—to wit, 'what is one man's meat is another's poison,' was never more fully verified than

in this complaint." (P. 171.)

We will now claim our author's privilege of "seriously speaking," and dismiss him with the following advice: Let him go on in the quiet, unknown way, that he did five or six years ago: let him give up his foolish quarrels with the profession, suffer his books to sink into oblivion, (i. e. cease to advertise them,) and, above all, renounce his attempts at criticism. For this last office he is so especially disqualified, that we venture to say, he will be hit twenty times before he hits once. Lepus tute es, et pulpamentum quæris?

The Cyclopædia of Anatomy and Physiology. Edited by ROBERT B. TODD, M.D., Lecturer on Anatomy and Physiology at the Westminster School of Medicine, &c. Part I.—London, 1835. 8vo. pp. 112.

WE congratulate our readers on the appearance of the first part of this Cyclopædia. The following list of the articles contained in it will show how interesting are the subjects, and how capable are the contributors of elucidating them. "Abdomen, by Dr. Todd; Absorption, Dr. Bostock; Acalephæ, Dr. Coldstream; Acids, Animal, W. T. Brande, Esq.; Acrita, R. Owen, Esq.; Adhesion, B. Phillips, Esq.; Adipocere, W. T. Brande, Esq.; Adipose Tissue, Dr. Craigie; Age, Dr. Symonds; Albino, Dr. Bostock; Albumen, W. T. Brande, Esq.; Amphibia, T. Bell, Esq.; Animal Kingdom, Dr. Grant."

The completion of the last article is reserved for the second Number, which is also to comprise the articles Animal, Ankle, Annelida, Anus, Aorta, Arachnida, Arm, Artery, and Articulation.

A few extracts may serve to give some notion of the execution of the work.

"Some curious anomalies have been observed in the venous circulation of the anterior abdominal wall, which, as being calculated to interfere with the operator, the practitioner would do well to note. M. Meniere has described a case in which a very large vein, arising from the external iliac, passed up along the linea alba to the umbilicus, was continued along the obliterated umbilical vein, and opened into the vena portæ. In another case, recorded by Manec, the vein originated in the same manner by two roots, reached the umbilious, taking a course parallel to the umbilical artery, formed an arch outside the navel, and, having re-entered the abdomen, opened into the vena portæ. In another instance which occurred to Cruveilheir, the superficial veins in the hypogastric region were enormously enlarged; at the umbilicus they ended in a trunk as large as a finger, which communicated with the vena cava as it passed under the liver. Berard proposes to explain, by the supposition of the existence of such anomalies as those above described, the occurrence of fatal hemorrhages from wounds inflicted at the umbilicus, which have been attributed to the persistence of the umbilical vein." (Art. Abdomen.)

"Cutaneous Absorption. There is a branch of the subject to which we must now direct our inquiry,—the existence and extent of what has been deemed cutaneous absorption. When we trace the progress of the lymphatic vessels from their great central trunks, and follow them through all their minute ramifications, we find that many of them appear to have their origin from the surface of the body; and hence we are led to suppose that the function of absorption is exercised, to a certain extent, by the cutis, or the parts immediately connected with it. That this is the case is proved by various pathological facts: we have daily opportunities of observing that various medicinal substances, by mere application to the surface, and still more when aided by friction, produce the same effect upon the system as if they had been received, in the ordinary way, through the medium of the stomach. By this

[•] See Haase, De Vas. Cut. et Intest. Absorb., tab. fig. 2; also, Mascagni, tab. 2, fig. 9-28, tab. 3.

means mercury manifests its specific action on the salivary glands; the salts of lead destroy the contractility of the muscular fibre; while opium, tobacco, and other narcotics, produce their peculiar

effects on the nervous system.

"But, besides this kind of absorption, which is brought about by the substances being, as it were, mechanically forced into the pores of the skin, and thus applied to the mouths of the lymphatics, it was an opinion very generally embraced by the older physiologists, and still retained by many of our contemporaries, that the lymphatics, which are distributed over the surface, possess the power of imbibing water, when simply applied to it by the immersion of the body, or even when it is exposed to aqueous vapour diffused through the atmosphere. This supposed power of cutaneous absorption was called in to account for various physiological or pathological facts, for which it appeared to afford a plausible explanation; while, on the other hand, the easy mode in which it appeared to account for these facts was made use of as the great argument to prove its existence. The statical experiments of Sanctorius, which have, since his time, been so much multiplied and extended, were supposed to prove unequivocally that the body is capable of gaining weight, independently of any substance received into the stomach; and, to account for this addition, recourse was always had to the cutaneous absorption. late, indeed, it has been discovered, that a part of the effect ascribed by Sanctorius to the action of the skin is in reality due to the lungs; but still, after making the necessary deduction for the operation of the latter organ, there remained a certain increase of weight, which it was supposed could only be accounted for by admitting the existence of the cutaneous absorption.*

"The doctrine of cutaneous absorption has, however, been altogether called in question by Seguin, who performed a series of experiments, which consisted in immersing a part of the body in a saline solution; for example, that of corrosive sublimate, the effects of which on the system at large would be easily recognized, if any part had been absorbed. The result was, that, when the cuticle was entire, no effect, that could be attributed to absorption, took place; and the conclusion seemed not unnatural, that, under ordinary circumstances, it did not exist. + Currie was led to form the same conclusion by accurately weighing the body before and after immersion in the warm bath, under circumstances which were conceived to be favourable to the process; and, as the results of his experiments coincided with those of Seguin and others, the doctrine of cutaneous absorption, except under the particular circumstances mentioned above, was very generally abandoned. Expe-

seq.; and the article 'Integuments' in Rees's Cyclop.

† "Fourcroy, Méd. Eclair. t. iii. p. 232—241, and Ann. Chim. t. xc. p. 185
et seq.

"Med. Reports, ch. xix.

[&]quot;Mascagni, p. 22-3; see also Kellie, in Ed. Med. Journ., vol. i. p. 170 et

riments have been adduced to prove that, even under these particular circumstances, when substances are applied by friction to the surface, they do not enter into the mouths of the vessels, but, being volatilized by the heat of the body, that the vapour thus produced is inhaled by the lungs;* an opinion which one might be inclined to think was almost too extravagant to be seri-

ously maintained.

- "The subject of cutaneous absorption has been lately investigated by Dr. Edwards, with that skill and address which he has applied to so many departments of physiology. By a number of experiments, which were performed on cold-blooded animals, where it was more easy to observe the effects, he found that absorption was carried on, to a considerable extent, when the animal. or a part of it, was immersed in water. The conclusion which the experiments seemed to warrant was, that transudation and absorption are, at all times, going forwards at the surface, but that the operations proceed at different rates, according to the circumstances in which the animal is placed, and that the body gains or loses weight, in proportion to the excess of one of them above the other. The analogy of the cold-blooded animals he applies to those with warm blood, and he supposes that they are subject to the same double action; a conclusion which appears to be confirmed by some experiments that were performed on guinea-pigs immersed in moist air, when an increase of weight was found to have taken place; which, after taking every circumstance into consideration, seemed necessarily to depend on absorption. + With respect to the experiments of Seguin, Dr. Edwards is not disposed to call their accuracy in question, but he points out various circumstances connected with them, which he conceives would tend to increase the transudation, and to diminish, or even entirely to The experiments of Dr. Edwards, suspend, the absorption. considered in all their relations, are generally conceived to decide the question respecting the existence of cutaneous absorption, under the ordinary circumstances, and in the natural conditions of the system." (Art. Absorption.)
- "Secretion. The existence of this function in the acalephæ is made known to us by the emission from their bodies, under certain

"Ed. Med. Journ., v. ii. p. 10 et seq."

NO. VIII.

† " De l'Influence des Agens, &c., ch. xii. p. 345 et seq."

вb

^{† &}quot;Del'Influence, &c. ch. xiii. p. 556 et seq. See, on this subject, Magendie, Physiol., t. ii. p. 189—196, and Dict. de Méd. et Chir. Prat. 'Absorption;' where he endeavours to prove that it is the veins, and not the lymphatics, which are the agents in cutaneous absorption. See also the remarks of M. Rullier, ch. ii.; and of M. Adelon, Physiol. t. iii. p. 10 et seq.; also art. 'Absorption,' Dict. de Méd. t. i. p. 124 et seq. M. Chaussier found that sulphuretted hydrogen gas, when applied to the surface of the body, manifested its deleterious effects on the system, Bibl. Méd. t. i. We have already had occasion to notice the opinion of Walter on this subject, p. 25, which is similar to that of M. Magendie. M. Buisson attempts to establish a distinction between the absorption which is carried on by the membranes and by the cellular texture, De la Divis. des Physiol. Phenom. p. 251 et seq."

circumstances, of a glairy mucus; by the stinging effect which some unknown product of their organization has upon our skin; and by the remarkable phenomenon of luminousness, which a large number of them present. The organs by which the mucus is secreted have not been satisfactorily observed. Dr. Milne Edwards saw reason to conclude, with regard to the rhizostoma, that a large quantity of this fluid is secreted by a glandular structure situated along the margins of the arms. The stinging property possessed by several animals of this class has been the subject of inquiry since the time of Aristotle; but to this day we remain in doubt with regard to the nature and mode of production of the agent which causes this effect. Some men seem to be insensible to the irritation generally produced by the contact of living acalephæ. But, for the most part, a slight touch of any part of their surface, and chiefly of the pendent tentacula, is followed, within a few minutes at most, by a burning pain, redness, swelling, and sometimes even a vesication, of all that portion of the skin which touched the animal. Sloane said of the physalus, ('what the seamen call caravels, or Portuguese men-of-war,) "They burn violently; they do suck themselves so close to the skin, that they raise blisters, and cause sometimes St. Anthony's fire."* Even on our own coasts, severe cases of inflammation of the skin are occasionally seen, which have been produced by the irritation received during bathing from some of the larger pulmograda." (Art. Acalephæ.)

We see, from Dr. Symonds' well-written essay on Age, that we were anticipated by no less a person than Lord Bacon in the interpretation of Medea's cauldron, which we gave in our review of Dr. Green's book. "Lord Bacon, in his curious and highly interesting treatise, entitled Historia Vitæ et Mortis, has much to say upon desiccation, and the methods of preventing it, such as bathing and inunction. The fable of the restitution of old Æsop [Æson] by the cauldron of Medea, he considers typical of the utility of the warm bath in softening the substance of the body." (P. 81.)

This first part does great credit to the talents of its distinguished editor, and the work, when completed, will be a library rather than a book. It is illustrated by an engraving, and a number of good woodcuts.

^{• &}quot;Nat. Hist. of Jamaica, ii. p. 273. Sloane recommends acajou oil as 'the remedy for the stinging of this nettle.' Mr. Bennet has lately found (Lond. Med. Gaz. xiv. 908,) that the application of winegar to the irritated surface in some degree alleviates the pain."

The Transactions of the Provincial Medical and Surgical Association. Vol. III.—London, 1835. 8vo. pp. 472, xxvi. and xii.

THE first paper in this volume is a retrospective address, delivered by Dr. Conolly, at the second anniversary meeting of the Association, and is characterized by the accurate judgment and flowing style which distinguish his writings: yet, when he remarks that, in the study of diseases of the brain, of the chest, and of the abdomen, all must acknowledge how much we owe to foreign cultivators of medicine, we would ask, are not the physicians of the Parisian hospitals (whom he especially cites,) far more behind us in practical knowledge than we are behind them in morbid anatomy? Do we not find, in the French journals, that Andral is beginning to learn the advantages of purgatives in diseases of the chest, while others are becoming acquainted with calomel and the benefits of mercurial inunction in ophthalmia,? Are not the bicarbonates of soda and potash put down as new remedies in Magendie's "Formulaire"? Dr. Conolly proceeds as follows.

"There is still another department of medical study and practice in which the French have done much, and we have done little. In the clinical study of mental disorders no advance can be reported: it is yet entirely overlooked in English medical education. Lectures are delivered, and treatises are written, but practical observation is limited to the officers of institutions for the insane. Hospitals for lunatics are closed to the student, and the knowledge of mental affections makes little or no progress. As a consequence of this, not a year passes without some notorious case of insanity being brought before the public, in a manner reflecting little credit on the conflicting medical authorities; whilst instances of the injudicious or improper confinement of patients are not unfrequent, and such as neither the visitors of asylums, nor the metropolitan commissioners of lunacy, nor the Lord Chancellor, are found to have, or to exercise, any power over. To the same negligence of this whole subject, it must be attributed that we have so few aids to a knowledge of the conditions of the brain in the various forms of insanity, that the pathology of insanity is so uncertain and incomplete, and the treatment so generally empirical. Our larger lunatic establishments have contributed little or nothing to our knowledge; and, in many of the private lunatic houses, there is too much reason to fear that therapeutic measures still obtain very little attention. When the public establishments are made (as, under proper regulation, they might be,) schools of instruction, we shall learn how much our practice in these distressing disorders may be improved. The phrenologists have attempted, without much encouragement, to throw some light on the causes of insanity; but, although the truth or error of their opinions on this subject is closely connected with the most interesting speculations that can employ the reflective powers of man, their views have, in very few instances, been examined in a philosophical spirit, or indeed with candour, either by physiologists or pathologists. There is reason to hope that, as a result of the humane and enlightened management of the large lunatic asylum at Hanwell, under the superintendence of Dr. Ellis, this branch of practice may hereafter be more satisfactorily spoken of." (P. 17.)

After mentioning the Bridgewater Treatises, and the advantages which the general as well as the scientific reader may derive from them, our author passes on to the late improvements in the remedial means employed in medicine and surgery. Among these, the use of iodine in scrofula, of strychnia in paralysis, and lithotrity, are the most important.

Dr. Conolly gives a very flattering account of the periodi-

cals dedicated to medicine.

"In the medical periodical literature of this country, which exercises considerable influence on the whole profession, few recent changes have taken place. We may observe that, for the most part, such publications are devoted to the useful but unambitious task of making abstracts or selections from new works, for the benefit of hasty readers, or of those not likely to see the originals: an office which, upon the whole, they perform with ability and fair-Whatever objections may exist to such a plan, it evidently leads to the ready circulation of much professional knowledge throughout the world. Some of our journals are more strictly chronicles of passing events; and such seem particularly required at a time when questions of medical polity are daily discussed. If not altogether free from personalities and illiberality, this portion of the medical press is yet, for the most part, conducted with much intelligence, and by men of integrity and honour. The Quarterly Journal of Medicine is to be noticed as a new publication, and it sets out with considerable claims in the department of critical writing, in which English medical journals have been generally de-The long established Medical and Surgical Journal of Edinburgh, associated in the minds of so many readers with their earliest studies, still maintains, especially in its critical notices, the high rank which it has so long possessed." (P. 22.)

Among the various topics discussed in this Address, some of which we must necessarily pass over, one of the most interesting is that of Self-supporting Dispensaries. Dr. Conolly remarks that, "unfortunately, also, in some towns, institutions have been conducted professedly on Mr. Smith's plan, but so curiously perverted from it as entirely to exclude that self-dependent principle which is the very soul of the new system." (P. 35.) We fear that this is the case in London, and that

there is not yet one dispensary which is really supported by he contributions of those who are to be benefited by it.

In his observations on the transactions at the Aldersgatestreet Dispensary, our author coincides with all thinking and honourable men; but his sentiments are so vigorously expressed, that we should wrong our readers were we to omit them.

"Among the medical events of the past year, it would be wrong to pass over an indication of independent feeling, redeeming amidst too many examples of voluntary professional degradation. It had arisen from the eagerness of medical men to obtain appointments to public institutions, that, on the announcement of any vacancy, the promoters of charities for the benefit of the sick poor were exposed to all the excitement and all the manœuvring attendant on a popular election. There were not, it is true, the treatings, the drinking, and the ribboned processions, but only the duller and deeper spots of such humiliating scenes: the abject solicitation, the secret circumvention, and the manufacture of By the last-mentioned device, claims established by honourable services were put aside, the real interests of charities trampled upon, the steady supporters of a charity outvoted, and the nominal supporters of one year indulged in a most pernicious patronage. It is gratifying to have to record, although I shall do it without comment, an example of manly opposition to this system, by the medical officers of the Aldersgate-street Dispensary,* which called forth prompt expressions of professional approbation, and went far to extinguish the corruption of medical elections for ever." (P. 35.)

A part of this discourse is naturally dedicated to the memory of professional men, recently deceased: the obituary of our author contains Dr. Darwall, M. Boyer, Sir W. Franklin, Dr. J. Gordon Smith, Sir Gilbert Blane, Dr. Henry Gaulter, and Dr. Becker. It would be difficult to point out a writer better qualified for this task than Dr. Conolly: his short accounts are terse and satisfactory, while the biography of Dr. J. G. Smith, which it would be unpardonable not to quote, shows great discrimination of the nicer shades of character, and the undefined debatable ground which separates human frailty from human virtue.

"When looking over the leaves of one of the periodical works some months ago, I saw an announcement of the death of Dr. John Gordon Smith, and the distressing fact was stated that he died in prison. No tribute to his memory seems to have been paid by the publications of a profession of which he was once a useful, and even a distinguished member. No friendly hand has recorded the merits of one of the most unfortunate of men. A sense of justice,

[&]quot;'Drs. Clutterbuck, Birkbeck, Lambe, Roberts, Mr. Salmon, and Mr. Coulson."

as well as a feeling of generous compassion, demands something more. When this ill-fated physician published the first edition of his Treatise on Forensic Medicine, his mind was vigorous and healthy, and that work was accepted and long quoted as one of high authority. In every successive edition and in most of his subsequent publications, may, I think, be traced, among much that is acute and striking, the marks of a mind somewhat declining towards disease. And such was really the case. He had become subject to attacks of violent and obstinate irritability of the stomach, and to these attacks invariably succeeded periods of great mental excitement, the subsidence of which was soon followed by a return of the gastric irritability. By these alternations, which afforded him little repose, his mental and bodily health became, in time, visibly impaired. His self-control was much diminished, and he fell into eccentricities in writing, in conversation, in manners, and in dress. He made repeated attempts to deliver lectures on Medical Jurisprudence, but the commencement of a course always seemed to aggravate or induce his mental excitement, and I doubt whether he ever completed one. He began to perceive that he was neglected, and he sometimes imagined that he was insulted, when no insult was intended. He became suspicious of his friends, and bitter, as far as words went, against his enemies. The limited state of his circumstances made his professorship in the London University an important consideration to him, yet he resigned it in haste, on a supposed affront; and the immediate filling up of the appointment too clearly shewed him that his retirement was not regretted. I have letters from him, written at that period, in which he calmly and affectingly states his melancholy situation; laments his irritability and its then irretrievable consequences; and expresses his painful disappointment at being, as it were, excluded from the arena of medical teaching, just when the great desire of his life was accomplished, by the admission of his favourite science as an acknowledged part of medical study. He had laboured many years without reward; and when the reward seemed within his reach, he was consigned, he felt, to hopeless indolence. I saw Dr. Gordon Smith at that time frequently, and I beheld with concern a man of a mind of great acuteness, of considerable literary acquirements, of much wit, and great powers of conversation, and of a disposition singularly warm and confiding, but passing into obscurity, and with the prospect of ruin before him. Embarrassed circumstances, sickness, insanity—the mad-house and the prison filled up, I greatly fear, the interval which followed between that time and the merciful close of his mortal existence. Yet to him the science of Medical Jurisprudence will always remain indebted; and it ought never to be forgotten that he was one of the first to shew, and zealously to advocate, what all now acknowledge, its usefulness and dignity. It is said that on more than one occasion he was instrumental in saving the life of an accused person, really innocent: if such were the case, that record on his tomb may well

outweigh a life of pain and disappointment; and doubtless it will there be remembered where good men's deeds are not forgotten, and sorrow can exist no more." (P. 38.)

We next come to A Report on the Chemistry of the Blood, as illustrative of Pathology, by Mr. EGERTON A. JENNINGS. The following are some of the more prominent points in this interesting paper.

In jaundice, the blood contains both the colouring matter

and the resin of the bile.

"The analysis of the blood in rheumatism has not, at present, afforded us any satisfactory information respecting that disease. The intensely arterial colour of the blood in rheumatism, the pulsatory motion with which it is frequently expelled from the vein in bleeding, and the uncertainty of the effect of bleeding on the disease, all point out a marked difference between the character of blood in rheumatism and in fever or inflammation; yet, when we notice the extreme mobility of rheumatic pains, which appear to run wherever the blood is distributed; when we see the application of a few leeches to the part entirely remove the pain, which shortly reappears in some other place; and when we see a single free bleeding sometimes stop the disease, as if, by diminishing the fluid, it proportionably cut off the stimulus which occasioned all these migratory irritations; we cannot (as M. Andral has remarked,) but look to the blood as a material agent in the production of rheumatism." (P. 72.)

But the most marked alteration of the blood in rheumatism is in the fibrine: in this disease, however far bleeding may be pushed, the buffy coat remains.

In gout, the blood is loaded with earthy phosphates and

highly azotised products.

In dropsy, the blood is often watery; but the disease may be occasioned by the greatly increased quantity of the blood, its quality being in no way impaired. (We suspect this to be extremely rare.)

Drs. Bright, Bostock, and B. Babington, have found that, when dropsy is attended by albuminous urine, the blood is deprived of a large portion of its albumen, and contains urea, the quantity of the latter being diminished in the urine. Other chemists assert that the diminution of albumen in the blood, under these circumstances, is by no means constant.

In *chlorosis*, the blood is very watery, the proportion of crassamentum to serum being less than one third of the healthy average. The deficiency in colouring matter is singularly great: a thousand parts of blood, which ought to contain 133 parts of colouring matter, in one chlorotic case contained only 52, and in another only 48.7.

374 Transactions of the Provincial Medical Association.

Now, "Mr. Brande* states that menstrual blood consists of a concentrated solution of colouring matter in diluted serum; and here we find a diminished proportion of colouring matter in the blood, attended with suspended menstrual secretion. The colouring matter of the blood is the portion from whence we obtain the iron. If the colouring matter be diminished, the proportion of iron must be diminished also. The administration of iron proves the most efficient mode of restoring menstruation. Can it, then, be doubted that in chlorosis menstruation is suppressed, from the absence of sufficient colouring matter in the blood to supply the secretion; while the administration of iron restores menstruation, by first increasing the proportion of colouring matter in the blood." (P. 77.)

Scurvy is another disease in which the chemical character of the blood is much altered: it is probably produced by an excess of saline matter in the blood, depriving it of its power of coagulation; and hence acids cure the disease, by restoring its power of coagulating. (This does not account, however, for the remarkable superiority of the citric to other acids in the treatment of scurvy.)

In cholera, there is a deficiency of water, as well as of

alkaline salts in the blood.

As bleeding is seldom required in scrofula, there is no recorded analysis of blood in this disease; but, in the few instances where Mr. Jennings has examined the blood, the proportion of serum to the crassamentum was considerably increased. Pregnancy checks scrofula, because in pregnancy the blood undergoes important changes, and contains an increased proportion of crassamentum, and particularly of fibrine.

In carcinoma, the morbid matter is probably formed in the blood, and "then deposited in the molecular structure of organs, in the same manner as the nutritive element of the blood, or is poured out on free surfaces on serous membranes, in a manner similar to the natural secretions." (P. 83.)

We must pass over the rest of this very instructive paper, and content ourselves with some of the author's conclusions.

"From the facts collected in this Report, we may conclude, 1st, That, in many diseases, the blood has been proved to undergo material alterations in its composition; and, in numerous other affections, there is good reason to suppose such changes to take place. 2d. That many of our medicines enter into the blood, and probably produce their remedial effects through that medium.

"Our knowledge of what medicines act by producing changes in the blood, and what by other means, is at present very imperfect. Some have been pointed out which undoubtedly enter that

[·] Philosophical Transactions, 1812, p. 113.

fluid, and probably through it produce their effects. Others again, as the salts composed with vegetable acids, and the large class of medicines taken from the vegetable kingdom, are some decomposed, and others digested, in the stomach. A third class, the sulphates and phosphates, the stomach possesses no power over: they are not decomposed by it, and mostly pass off by the bowels, on which they produce a purgative effect." (P. 91.)

Mr. T. TURNER has contributed a long paper on the present state of *Anatomy*, which might form a useful manual on the subject, if carefully rewritten. The following is Mr. Turner's account of the otic ganglion.

"That the ganglia (not merely those of the great sympathetic system,) in the vertebrata are subservient to involuntary actions, or functions, is, I think, a plausible opinion, and appears to be strikingly corroborated, or at least strengthened, by one of the presumed functions of the otic ganglion, recently discovered by Arnold. This body, which is situated near the cartilaginous part of the Eustachian tube and the origin of the tensor tympani, forms communications with the fifth and the ninth, by means of the tympanicus, and, lastly, by means of the latter with the facial and auditory nerves; which anastomoses are of the utmost importance in a physiological point of view. Many nerves derive their origin from this ganglion, but the most important of them is one which ramifies in the tensor tympani muscle. In anatomical character, the ganglion oticum is analogous to the ophthalmic ganglion; and, in office, it bears the same relation to the membrani tympani that this last ganglion does to the iris. To comprehend this, it is necessary to understand that it is believed that the membrane of the drum has a double function,-namely, the propagation of sound, and that of being the means of protection and a moderator to the nervous ramifications in the interior of the ear. In the former office, the membrane vibrates from the fluctuation of the air; but, in acting as a means of protection, the membrani tympani does not merely keep off the immediate effect of air and other injurious influences, but moderates the too-powerful action of sound on the internal ear. The discovery of the ganglion oticum is an interesting point in modern anatomy; and Mr. Tyler, who has translated Arnold's paper from the German, is entitled to the best thanks of the profession." (P. 154.)

Dr. Symonds gives an account of the *Cholera* as it appeared at Bristol in 1832, in which the reasons for and against its contagiousness are well summed up.

First, contra:

[&]quot;(a) There was not the slightest reason to suspect that the person first attacked on the 11th of July, had been exposed to infection.

[&]quot;(b) The disease broke out in distant parts of the town, without

any communication being traceable, and in some instances almost simultaneously; in scarcely any instances did it appear to spread

by continuity.

"(c) Even in a limited space, as in one street for instance, it would rage, at the same time, in sets of houses, comparatively remote from each other; the intermediate dwellings being quite free, although the circumstances of intercourse between the inhabitants

were equal.

- "(d) It often happened that individuals, having staid long enough in a diseased locality to contract the malady, did not introduce it into their own neighbourhood, in which they lay ill and died; and the same was true of many who fled from an infected district, and were seized, in their new abode, two or three days afterwards. The case of the sailor who had been in London, and died at the Hotwells in the month of March, is a remarkable instance of the kind.
- "(e) Not a single medical man was attacked with cholera, although most of the profession, engaged with the disease, experienced a diarrhæa, which they attributed to the combined effects of fatigue and atmospheric influence." (P. 182.)

Secondly, pro:

- "(a) Scarcely a single nurse, or other attendant, at the hospital, escaped the disease in some form or other: the men employed in carrying the sick in baskets to the hospital, were extremely subject to the disease, and particularly the bearers of corpses; individuals who, in the agony and distraction of grief, had clasped the dead bodies of their friends or relatives, often sickened very shortly afterwards.
- "(b) Persons approaching the bedsides of very malignant cases, or passing the corpses carried out of the wards of the hospital, were sensible, not only of a very peculiar odour, but also of sudden nausea, malaise, an indescribable gloom, and frequently spasmodic twitchings of the muscles of the face and extremities. Patients, to all appearance, convalescent, would suddenly relapse, soon after the introduction of a very bad case in the next bed, as if from a reception of a second dose of the poison.

"(c) The persons first attacked in a part of a parish, had, in some cases, been in communication with the sick elsewhere.

"(d) A girl became ill, and was removed to Thornbury, about nine miles distant; her complaint proved to be cholera, but she recovered. Her mother, however, who had not been in Bristol, fell ill of the same disorder, and died. The malady, did not spread in consequence, as the residents adopted very strict measures of seclusion." (P. 183.)

MR. Rumsey's account of an Epidemic Scarlatina, which appeared at Beaconsfield, in 1832, makes us almost indulge in an observation like that of the connoisseur in the Vicar of

Wakefield, who used to remark, that the picture would have been better, if the painter had taken more pains. This essay should evidently have been rewritten: it is in an undigested state; but we will not insist upon this point, as we have quod accusatori maxime optandum est, confitentem reum. Mr. Rumsey regrets the want of time, &c. The account, however, is practical and praiseworthy, as will appear from the following extracts.

"The symptoms ushering in the disease, were a slight sense of soreness in the throat, the tonsils and velum pendulum being red, often with a yellowish slough, and sometimes with a coat of aphthous-like exudation on the surface; the exudation going off, would leave sloughs more or less deep. There was more or less bleeding from the nose, giddiness, pains of the legs, head and back, with frequent retching. Sometimes the mere food would be thrown up, and at others, the food tinged with green bile. In one case, which proved rapidly fatal, with symptoms of great prostration, it was ushered in by aphthæ in the throat, without any symptom to distinguish the disease for six and thirty hours afterwards; so, that it had proceeded to almost a fatal termination, without the character of scarlatina.

"The pulse would usually be about 120 after the first day. The tongue being at first of a greyish white colour, and moist; often on the second day, and later, having a browner broad stripe down the middle to the tip, with dryness. The eruption would appear in about forty-eight hours, often sooner, after the disease commenced, being preceded by an unequal redness of the face and arms, without the stigmata of a rash, or the equal colour of a flushed skin: so that by this patching redness, it might sometimes be predicted that an individual would soon be the subject of the disease, before he

had actually become so.

"In several cases the bursting out of rash was accompanied by well-marked nettlerash blended with it. The glands under the jaw were tender from the earliest stage, a circumstance calculated to assist the diagnosis, in such cases as might be confounded with The conjunctiva was red, and in many cases a defluxion of thin ichor was poured out from the nostrils. It would often happen that very early, as on the first, second, or third day, there would be a great and alarming sense of weakness, seeming to be a degree of collapse, rather than debility produced by exhausting symptoms, or the known and usual depression of fever. This depression was known to go off without the assistance of stimuli, in one or more cases; which I mention as favouring the opinion that it differed from exhaustion. It is an alarming feature in the disease, and often bids defiance to our most vigorous employment of cordials. The weakness which has its corresponding, and intelligible causes, is one thing: that which sets our powers to explain it at defiance, and is related, probably, to some principle connected with the hidden physiology of nerve and which is called collapse, is another; and their distinct nature should be seen, in order to enable us to form a rational prognosis. In other cases the depression was too excessive to admit of any delay in the most vigorous use of cordials. The tongue would acquire a thick coat, which in one instance was very rapidly formed, and bore a resemblance to aphthæ. There would be, in some cases, a little hoarseness and cough, and often, on the decline of sore throat, a very troublesome and irritating cough; but a most strikingly smaller propensity to catarrhal affection than is seen in measles. The urine was sometimes copious and pale during the first twenty-four hours. The appetite upon the access of the disease ceased. On the second and third days the skin became hotter, but seldom, I apprehend, exceeding 1030 of The inflamed throat, in the less favourable cases, Fahrenheit. would assume a dark red hue, its vessels readily giving way, and bleeding, if touched with a spoon. If the tonsils were enlarged and firm, of a light red colour, suppurative inflammation was to be expected, more than malignancy, and affording a more favourable prognosis. Viscid and troublesome mucus would occupy the fauces. Observation confirmed the otherwise reasonable conclusion, that a bright red eruption was more favourable than that of a livid hue. In some, the eruption would be coarse and patchy, more or less distinct, growing browner on the fourth or fifth day, and then going off. I observed in several instances, and have formerly noticed the same fact, a return of a well characterized eruption, more than a week after its disappearance." (P. 196.)

"I observed nothing in the alvine discharges peculiar to this disease, or differing from what any continued fever might present. In one case the motions had a dark-brown hue, with, as it appeared, an overload of bile; in which I gave, and repeated, an active purgative, when the subsequent motions became of a proper colour; the previous evacuations having had no striking influence upon the case. It happened in several cases, as I have before, on other occasions, observed, that violent cholicky pains would come on. These have been sometimes relieved by the warmth of clysters; I believe, also, that they are relieved by antispasmodics; yet I would earnestly recommend, upon their occurrence, a careful investigation into the accompanying symptoms, lest they should, in certain individuals, have the inflammatory character, and end in corresponding consequences. There is no doubt that this remarkable pain has a peculiar relationship to the disease. I have witnessed its occasional connexion with it ever since I was a student in medicine, and for the first time in the year 1811." (P. 200.)

"To lower the temperature of the throat externally by evaporation, appeared to me to be preferable to blisters, and highly grateful to the patient. I never met with a clear demonstration of the usefulness of blisters, but often of their trouble to the patient: nevertheless, I occasionally employ them. I include, in my remedial treatment, a constant confinement to bed, and a careful and frequent observation of the temperature of the body; taking off or adding covering; drawing and undrawing curtains; admitting or excluding the light; renewing or extinguishing the fire: keeping it clear, without smoke; enjoining, with peculiar urgency, the recumbent position, as soon as any characters of great debility have appeared. I consider it to be very important to admit so much fresh air as that the rooms shall never be close; and to this end I advise the removal of carpets and superfluous furniture. The rooms should be wiped, both walls and floor, for the purpose of removing dust, as the dust, I think, has an effect in disqualifying the air for respiration. In the advanced stages of the disease, and under the circumstances of collapse, a most rigid economy of strength should be used. The throat should be inspected without much disturbance to the patient; and children should not be struggled with when they resist, unless it be clear that there is a great necessity for inspection. Opiates, to procure rest and allay irritation, as circumstances dictate, are useful. It is not uncommon to find, in the early stage of the disease, before the strength has been exhausted, a pulse of full volume, which, with the accompanying hot skin and flushed face, might, in other circumstances, suggest the necessity of general bleeding. It would be right, however, in this disease, to subject these symptoms to strict scrutiny, in respect to other attendant circumstances and appearances. It should be ascertained whether the sensorium is affected by any the slightest deviation from its usual integrity; whether the memory fails, or a remark is made twice over; whether there is any tremor of the muscles, or subsultus tendinum; whether the erect position of the trunk, in bed, hurries or weakens the pulse, or the countenance grows pale under it; whether all or any of these circumstances happen in the slightest degree. Such a test of diminished strength is the best that I know, and should, in my opinion, if such characters exist, guide the practitioner to avoid lowering the system by active or negative means; especially if there be an epidemic, which may have exhibited cases in which great and serious depression of strength had spontaneously come on. I have witnessed the mischievous effects of lowering a patient too much in pneumonia, where the case has been accompanied by sensorial disturbance and muscular tremors, even in the athletic and youthful. There is, then, in scarlatina, a state which might be called a mimicry of plethora and strength, while the disease is, nevertheless, on the verge of collapse, and the pains to be employed for the discrimination cannot be too carefully insisted upon." P. 206.

Mr. James has contributed "Observations on some of the Causes which influence the Formation of good or bad Stumps, in certain Cases of Amputation of the Thigh." He remarks,

that it is still a well-grounded complaint that defective or projecting stumps are not unfrequent, and quotes Mr. Mayo, who observes, that, "after amputation of the thigh, the surgeon is often disappointed at finding that, careful as he may have been to guard against this particular evil, the bone projects." (Med. Quart. Rev., vol. ii. p. 411.)

Defects in the operation form the first class of causes which may produce bad stumps, as when the section of the bone is made too near the knee: or the difficulty may arise from the unhealthy state of those tissues of the limb, which are capable of affecting the formation of a good stump. Thus, the skin may be loose and redundant, or there may be an excess of fat in the integument; or,

"Thirdly. The muscular flesh of the limb may be much changed in various ways: it may be simply emaciated; or it may be swoln and agglutinated, either from acute or chronic inflammation. the first case, a good stump will hardly be formed, unless the bone is cleared high up; in the second, from want of contractility of the muscles, a similar proceeding will be essential: but it is to another degeneration that I now particularly solicit attention, in which, from long disuse, (the consequence of old-established disease in the knee or leg,) scarcely any trace of muscle is left in the lower part of the limb: the fibre has been for the most part absorbed, and either we find mere fat in large quantity, or intermixed with a little fibre; or, what is not uncommon, the muscle converted into a sort of firm, gristly, semi-adipose matter, perfectly incapable of contracting under the knife. Now, in such cases as these, I cannot but suspect that either of the methods practised by M. Dupuytren or Sir C. Bell, or those of many other surgeons, would fail: they are all based upon the principle that the muscles contract as they are divided, which is not at all the case here: the only mode of forming a good stump, I apprehend, in these cases, is by clearing and sawing the bone high.

"The muscles may not have degenerated, but another change may have taken place in them, depending upon a long-continued position of the limb: thus, where the knee has been for a considerable period fixed in a bent position, the flexors will have their distal points already much approximated, and will not shorten in any great degree after they are divided; while the extensor muscles, which have been in the same proportion on the stretch, will retract much more: if, therefore, both are divided in the same plane, the latter will be deficient, the former projecting. The separate division, at different heights, of these two classes of muscle, will enable us to overcome this defect; and the position of the limb, after the operation, may be so regulated as to give an

advantage to the defective portion.

"Fourthly. It not unfrequently happens that the state of the

bone makes an essential difference in the operation. When we are obliged to amputate for necrosis of the thigh, (affecting the knee-joint, as it often does,) it not unfrequently happens that we are obliged to divide the bone where, with the swoln periosteum, and the adjacent hard cellular tissues, it has a much larger bulk than common; the muscles around being at the same time much agglutinated. In these cases I must express my belief that it is most essentially necessary to save an ample quantity of integuments, as our only sure resource for covering the bone: we may, or may not, succeed, in the progress of the operation, in preserving muscle enough, but of integument we are secure; and, although it is not the best material, yet it is infinitely better to protect the bone with this, than to leave it in any degree bare, which will inevitably produce a multitude of evils. If we can save the integument without detaching it from the subjacent muscles, (a plan much condemned by many authors,) so much the better; but, if not, the knife must be used." (P. 223.)

In relation to the frequent fatality of the operation, Mr. James says:

"In considering the question, it is necessary to advert to the nature of this particular wound, which not only involves the ordinary soft parts, but also bone; and, if the matter be viewed in this light, we shall perhaps perceive little difference between the wound resulting from an amputation, and that of a compound fracture. It is true that, in the stump, we ought to have no laceration of the soft parts; but, on the other hand, they are often in a very unhealthy condition. It is also true that we have no spiculæ of bone to produce irritation; and, although the injury done to that part by the saw is very great, yet it is much more limited in extent than in fracture. I apprehend, however, that the formidable results often consequent on this operation, if the wound passes into any considerable degree of inflammation, may be much explained by the obvious analogy with the accident alluded to above: hence, as in compound fracture, the case often does worse if the surgeon persists in his endeavours to keep the wound closed, (the first attempt at union being defeated,) than if he throws it open: hence the severe constitutional irritation, the disposition to phlebitis, &c. Either injury is liable to causes of aggravation peculiar to itself: in the compound fracture, every motion disturbs the process of ossific union essential to the cure, and may cause the shattered bone to irritate the soft parts: in the stump, this is not the case; but then each movement may displace the loose muscles, ready to shrink up, and destroy the recent adhesions. In the compound fracture, it is the confining and collecting of matter which produces the worst symptoms: the same thing will happen in stumps, if early care is not taken to give it vent. Our true advantage in amputation is, that we can, if we choose, always effect this, while in compound fracture we often cannot.

"There is one circumstance which strongly evinces the similarity of the process, in cases of bone divided by the saw, and those where it is fractured,—namely, that, in many amputations, much osseous matter, or matter approaching to it, is deposited about the end of the bone, which is often, if not always, reabsorbed: this will, I believe, frequently engage the extremities of the nerves, and so occasion much inconvenience in that as well as in other ways: indeed, I cannot help thinking that the consequences accruing to the nerves may have been, possibly, too exclusively attributed to diseased thickening, originating in the nerves themselves; for in these cases we observe that, from the position of the wound, the nerves being turned in upon the divided surface of the bone, together with the other soft parts, while that bone pours forth its peculiar effusion in common with them: they thus become entangled in a matter dense and unyielding; into which, moreover, they are pressed by the straps and bandages applied, and hence peculiar causes of irritation are afforded. In other wounds, whatever their nature may be, it is comparatively rare to find such consequences ensue to the nerves.

"This deposit of osseous matter more particularly attracts the attention of the surgeon, as the soft parts are healing, and it is accompanied with the same kind of increased action which is not uncommon in fracture, whether complicated with a wound or not. Similar measures are beneficial in both cases, namely, leeches, and evaporating lotions or poultices, to the immediate seat of this action, (which is denoted by pain, heat, and solid swelling;) and blisters applied more remotely." (P. 229.)

There is a case of Extra-uterine Fatation, with remarks, by Mr. Selwyn. The patient was a young woman, aged twenty-eight, who was attacked with vomiting, purging, and tenderness of the abdomen, and sank in about thirty hours.

"About forty hours after death, I examined the body, assisted by my partner, Mr. Miles Astman Wood. On making an incision into the abdomen, a quantity of blood began to escape, and, with a sponge, we removed between three and four pints of that fluid from the pelvic cavity. There was, also, a round tumour, apparently of coagulated blood, lying in it; but on separating the external layers, a fœtus, about three months old, was seen within, floating in its liquor amnii. On examining the uterus, and its appendages, a large ruptured cavity was found (apparently, for I could not trace its canal) in the right fallopian tube, from which the fœtus had es-As a drawing will convey a more correct idea of the condition of the parts, than could be given in words, one is subjoined from the pencil of Mr. Ballard, of Ledbury; which he was kind enough to draw, at my request. Neither the peritoneum, nor its enclosed parts, presented any marks of inflammation. The bowels, on the contrary, were particularly blanched." (P. 233.)

From Mr. MIDDLEMORE's able essay on Pterygium, we must be content with extracting a passage on the treatment.

"We may sometimes arrest the progress of pterygium by the use of astringents and stimulants; and the cases in which they are most usefully employed for this purpose, are, when the pterygium is small and of recent origin, and is actually increasing in size. The common zinc wash, or the nitrate of silver or sulphate of copper drops, in the proportion of two or three grains to the ounce of water, are the best remedies for this purpose; and the patient may be directed to allow a little of the one or the other of these applications, as may be preferred, to be dropped upon the pterygium, from a common capillary tube, two or three times a day. If, by these means, its increase can be checked, then their use may be suspended, (and this is more particularly necessary when the nitrate of silver drops are employed, on account of their tendency to tinge the conjunctiva) for it not uncommonly happens that, when once the progress of pterygium is arrested, it will not again increase, or will at least remain stationary for a long time; still, if at any future period it should evince a disposition to enlarge, the same practice may be again employed.

"Escharotics were formerly much used, but their employment is now pretty generally discarded from our catalogue of remedial measures for the cure or relief of this disease; and very properly so, for, undoubtedly, they are very bad applications; and to them must be attributed many of those troublesome diseases, into which pterygium may degenerate from injudicious and mischievous

treatment.

"Scarifications have been frequently employed, and, I may say, successfully employed, for the cure of pterygium; but it is a tedious and painful mode of cure, compared with the operation of excision, that is, the partial excision of pterygium, for its entire removal is, in many instances impossible, always unnecessary, and sometimes very injurious." (P. 256.)

The next paper consists of Dr. Walker's Observations on the Diseases of Children, continued from the last volume. He narrates the following cases, which we must give in an abridged form. A girl, aged three years, was recovering from scarlatina, when her abdomen began to increase in size, so that effusion within its cavity was suspected. She was cured by mercurial remedies, iodine liniment, and ioduret of iron. A boy, of sanguineous temperament, afflicted with epilepsy, was not relieved by cupping, blistering, and purging; but a temporary suspension of the fits took place when his mouth became affected by mercury. A girl, aged six years, was recovering from hooping-cough and measles, when she was attacked with paraplegia. Counter-irritants were applied

to the spine, but no benefit was derived from them: the brain became affected, and fatuity supervened. Blisters and the tartar-emetic ointment were resorted to, but in vain. Some advantage was obtained, however, from the mercurial treatment: there was less fatuity of countenance, and, from the use of friction, the limbs regained part of their power.

A boy, named George Roberts, was an in-patient of the Huddersfield Infirmary. He was suffering under paralysis of the upper extremities; and his case, while it shows the efficacy of strychnine, will show likewise the caution with which

it must be administered.

"This patient had formerly been relieved for a disease of the cervical vertebræ. At the period of his admission he was unable to move his left arm, and had not the free use of his lower extremities; his head was drawn downwards to the left shoulder, and his articulation was indistinct; the pulse was natural; bowels regular; tongue clean.

"Nov. 25th.—A blister was applied to the nape of the neck, and he took gr. iv. of the pil. hydrargyri every night. A stimulating liniment was rubbed twice a day on the back, with the occasional

use of the flesh brush, and electricity.

"He continued the pil. hydrarg. until the 18th of December, at which time the mouth was affected, but without any apparent improvement. I therefore had recourse to the strychnine with less reserve, indeed, inasmuch as I was satisfied that the remedy would have a fair trial, under the judicious superintendence of our house surgeon, Mr. Clayton, from whose notes the following account is taken.

"Dec. 18th.—A blister was ordered to the nape of the neck, and to apply to the blistered surface one eighth of a grain of

strychnine.

"The blister was kept discharging, and the strychnine applied twice a day, until the 23d of December, when he complained of pain in the bowels, and some feverish symptoms; and, in consequence, the strychnine was omitted, and some saline aperient ordered, which he continued taking until the 4th of January, 1834, when he was in a state to resume the use of the strychnine, in the following pills. R. Strychninæ gr. i.; conf. rosæ q. s. f. pil. no. x. Capt. pil. i. bis in dies. Cont. electricitas et frictio.

"Jan. 12th.—Upon the whole better. Appetite improved; no twitchings. To take a pill, with one eighth of a grain, twice daily.

"21st.—Still no twitching, nor any relief in the symptoms. To

take a pill, with one sixth of a grain, twice a day.

"25th.—Has had some little pain in the head, which was removed by a smart purgative. R. Strychninæ gr. ij. in pil. ix. Capt. i. ter die.

"26th. Some twitchings in the arms last night, and pain in

the head this morning. Bowels open; urine copious; pulse regular.

"27th. Pain of the head gone; twitchings the same.

"The strychnine was gradually increased, without any visible amendment, until he took half a grain twice, and then three times a day; but on the 7th of February, about noon, whilst eating his dinner, he suddenly fell from his seat, his right arm forcibly extended, the teeth clenched, pupils immoveable, face of a livid hue, lower extremities quite stiff and stretched out. In this state he remained about twenty minutes. He was not, however, completely relieved for many hours, the same symptoms recurring in a less degree, and he could part with no water. Some brandy and water, with spir. ammoniæ comp. was given as soon as he could swallow, which, with the constant application of warm fomentations to the abdomen, and the use of liniment, &c. eventually relieved him. His bowels were freely opened, and in the evening he passed some urine.

"Feb. 8th. Complains of great weakness and sickness. To continue the ammonia.

"9th. He now parts with his urine as usual, and his bowels are open, though he still complains of some pain, as well as sickness. Pulse seventy-four; heat natural. R. Spiritus ammoniæ comp.; spir. lavand. comp. aa f. 3ij.; misturæ camphoræ; infus. cascarill. aa f. ziv. M. capt. zi. ter in dies.

"14th. Better in every respect. Rept. mist. et capt. pil. aloes

comp. no. ij. h. s.

"24th. Has been gradually improving since the fit, and has regained the free use of his legs and arms. Says that he has occasional pain in his bowels, for which he was ordered the magnesia mixture, with a few drops of tinct. opii.

"On the 28th he felt himself so well, that he was permitted to leave the house. About two months afterwards he appeared to be

even better than when he left the infirmary." (P. 279.)

Mr. Ingleby's Essay on Puerperal Convulsions is a good summary of what is known on this subject; but, as we have already in this Number given a review of Velpeau on this disease, we shall pass it over, with the exception of three cases.

"Case IV. In this case, which occurred about the sixth month of a first pregnancy, the convulsions were associated with hemiplegia. The muscles of the right side of the face were, at times, convulsed; the right angle of the mouth fell; and the pupil of the right eye was dilated. The patient had difficulty in uttering certain words; the countenance was dull; the mind melancholy, and materially enfeebled. Labour ensued at the ninth month; on the termination of which the disease began gradually to subside, and in three weeks entirely left her. She perfectly recovered, and

afterwards had a large family of children, without a recurrence of the disease.

"Case v. A poor woman, subject to convulsive fits, and the mother of several children, applied to me in the seventh month of her pregnancy, with an enlargement of one of the finger joints. She expressed a wish to be bled, on account of a violent pain in the stomach of several days' continuance: but before my pupil could see her, she was seized with convulsions, and had been bled largely by a neighbouring surgeon. Some hours after this she was bled again, to nearly 3xl. and other curative means were used; nevertheless, the fits, frequently recurring, ended in stupor. The os uteri was found to be closed. She died in a fit, about thirty-six hours after the seizure.

"Sectio cadaveris. Abdomen—the uterus and its contents in a natural state; thorax—slight enlargement of the bicuspid valves of the heart; head—considerable effusion of limpid serum between the pia mater and arachnoid membrane, and an effusion of bloody serum in the ventricles, with adhesion of the membranes to the upper part of the spinal canal. I had not an opportunity of seeing this patient after the attack of convulsions. Ought not the mem-

branes to have been ruptured?

"Case vi. Mrs. F. who resided five miles from Bridgnorth, naturally of a spare habit, had become rather plethoric during her third pregnancy. She complained, on Monday morning, the 15th of July, (being within six weeks of the full term of gestation) of sick headach, and went up stairs to lie on the bed. The servants soon heard a heavy fall, and, on entering the room, found her on the floor, struggling violently, quite insensible, and surrounded by blood, which proceeded from injuries received in falling and struggling; this was at ten o'clock A. M. I did not see her until two P. M.; she had then had three fits, and had vomited three times: was partially conscious, but quite unable either to speak, or grasp my coat when I was tying up her arm; the pulse was rapid and very full. The countenance was flushed, except during the convulsion; and the os uteri sufficiently open to admit a finger. After taking away about \(\frac{7}{2}\text{xvi.} \) of blood a frightful convulsion ensued, which entirely deprived her of consciousness. I allowed the vein to bleed to about \(\frac{2}{x}xx., \) applied cold to the head, and endeavoured, but in vain, to make her swallow some castor oil (the only medicine at hand). She was exceedingly restless, and lay moaning, partly crying, and frequently put her hand to her head. At four o'clock (the earliest moment the medicine could be obtained) I succeeded in giving her eight grains of calomel and a drop of croton oil, administered a colocynth injection, and had twenty-four leeches applied to the temples. The convulsions followed each other in rapid succession; the breathing after each paroxysm became more stertorous, and the coma more profound. At five o'clock the vagina was greatly relaxed, and the os uteri easily admitted two fingers. As the case was assuming progressively a

more alarming aspect, I requested a consultation. Mr. Blount arrived at eight o'clock, and acquiesced in the propriety of delivery: at this time three fingers could have passed the os uteri. Rather more than usual difficulty attended the passage of the hand into the uterus, otherwise delivery could not have been more easily or speedily accomplished. No fit came on during the delivery, but another most violent paroxysm ensued immediately afterwards, succeeded shortly by death. The infant survived.

"Autopsy. The body was examined twenty-four hours after death. Serum had collected between the arachnoid and pia mater, and also from 3ij. to 3iij. in the ventricles. The brain was very firm and healthy. Query: When was the fluid secreted?" (P. 329.)

Dr. Jeffreys has contributed Pathological Remarks on some Diseases of the Brain, particularly in reference to the

Uncertainty of Diagnosis.

The first case intended to be in illustration of the old thesis, ή διαγνωσις χαλεπη, is that of a little girl, who was cured of hydrocephalus internus by leeches, purging, mercurial inunction, and blisters. This was in 1798. She afterwards became the wife of the present Dr. Babington, and died in 1824. He says,

"Your patient, whom you justly represent as having been most interesting, was separated from me by death, in January 1824. Her health had been much weakened by the hot climate of India, and a very severe confinement with her first child; but she lived to give birth to four other children, and had in some measure rallied, when she became the subject of tubercular phthisis, which was developed in consequence of a casual cold, and ran rather a rapid course. There was no post-mortem examination of her remains. She was for many years liable to occasional pains in her head, and to a nervous sensation, which at times prevented her using her needle, or reading, or even playing from written or printed music. She described the sensation to be as if the point of the needle, or the letters of the book, or notes of the music, were advancing towards her eyes, or even touching them; and she found relief in having her temples, especially at the outer orbits, gently pressed. These pains and nervous feelings were rather a matter of remark than complaint: they were never to such a degree as to call for medical treatment. I have often heard my father mention the case, and can testify, on his authority, that neither Dr. Saunders nor himself had any hopes of a recovery." (P. 349.)

In this case, however, the diagnosis appears to have been perfectly correct. The hydrocephalus was cured, but some slight affection of the brain remained.

The second case is headed abscess of the brain, and the third ulcer of the brain. In the former, the patient suffered

from pyrosis and other dyspeptic symptoms, as well as intense headach: delirium followed, and shortly put an end to her existence. In the latter, the patient had long suffered from various diseases, some of which were of a formidable nature: they were accompanied by severe dyspeptic symptoms. Vertigo and great anxiety afterwards supervened; and, some months before his death, he became affected with stupor, torpor of his left leg and arm, eneuresis, and other symptoms of paralysis. It is obvious that, even in the former case, there was reason to suspect some affection of the brain, which was obviously present in the latter one; but it must be confessed that the refinement of diagnosis has not hitherto gone so far as to point out, with tolerable certainty, the existence of an ulcer or abscess in the brain.

In the fourth and last case, the cerebral symptoms were well marked; but the appearances, in Dr. Jeffreys' opinion, were unsatisfactory. The brain was more firm and vascular than ordinary, and "the plexus choroides was of a brown instead of a florid colour, and quite of a morbid appearance." (P. 364.)

Mr. Brayne furnishes a case of Extreme Enlargement of the Articular Epiphyses of the larger Joints, from Rickets.

We then come to an Annual Report of the Birmingham Infirmary for Diseases of the Eye, by Mr. MIDDLEMORE. He has some valuable observations on opacity of the cornea, in one form of which he recommends the use of sulphate of cadmium.

"If a thin layer of inflammatory (lymphatic) deposition exist between the corneal lamellæ, it will produce a dirty bluish-white appearance, such as is often witnessed in the light form of opacity of the cornea: and it is to this condition of disease that the following plan of treatment is more particularly adapted. Let a camel hair pencil be dipped in a solution of the sulphate of cadmium (one grain to two ounces of distilled water) and applied to the cloudy part of the cornea three or four times a day.

"This application produces very little uneasiness; and I have not observed that it inflames the eye, or produces any of those unpleasant effects which sometimes follow the use of the oxymuriate drops. I do not usually advise the solution to be used until the cornea is entirely removed: and I think it unnecessary to continue its use after indications of its commencing disappearance are une-

quivocally manifest.

"Of course, when an opacity of the cornea results from loss of its lamellar texture, the preceding method of treatment is not likely to be serviceable, except inasmuch as it may cause the removal of a sort of halo, or slight nebula, which surrounds the dense leucoma.

"The treatment of opacity of the cornea by the insufflation of calomel, &c., which has been stated to have been so successfully adopted by Le Pelletier, Dupuytren, Sanson, and other celebrated French surgeons, has not succeeded in my own practice. In fact, the inflammation excited by the insufflation tends to augment the malady; for it must never be forgotten that, when a small opacity of the cornea is present, every slight attack of ophthalmia is liable to increase its size; even a degree of inflammation, which would be inadequate to give rise to lymphatic deposition in any part of the cornea, if none previously existed.

"A weak solution of the oxymuriate of mercury is a favourite and very common remedy for the cure of opacity of the cornea, and there can be no doubt respecting its efficiency; but it produces a good deal of pain, and, when employed too soon, or is injudiciously continued, it is prone to recall the inflammation, the effects

of which it is employed to remove." (P. 376.)

The use of the cadmium seems to be adopted from Dr. Tott, whose recommendation of this remedy we gave on a former occasion. (Med. Quart. Rev., vol. i. p. 428.)

The Reports of the Out-Cases treated at the Birmingham Infirmary, by Mr. Parsons and Mr. Ryland, are interesting documents; but we can afford space only for a short extract from the latter.

"Fever was very prevalent in Birmingham during the summer quarter: it chiefly affected the bowels, producing ulceration; at least, in every case in which I had the opportunity of examining the body after death, ulcers were found in the cocum and ileum.

"One of the cases, in which ulceration of the bowels was found, is curious, from the circumstance of the patient dying of hemorrhage that had its source in the ulcers. John Taylor, æt. thirty-four, shoemaker, was seized with fever on the 4th of November. Under the usual treatment he seemed to be improving rapidly, and began to take nourishment, when, in the night of the 16th, he had two large motions, composed almost entirely of blood. There was no particular fulness about the bowels, but pain was felt on pressure being made in the right iliac region.

"17th. The hemorrhage from the bowels continued; and, early in the morning of the 11th, he was found dead, a great quantity of blood having flowed into the bed, unobserved by the

attendants.

"Sectio cadaveris, twenty-nine hours after death. The body was remarkably exsanguineous throughout. A great quantity of dark fluid blood was found in the colon, the cœcum, and the lower part of the ileon; the rest of the small intestines were pale and healthy. Numerous ulcers were found in the cœcum, and four large ones in the last six inches of the ileon; the latter were deep and sloughy, and it is probable, that from them the hæmorrhage had taken place, which terminated the patient's existence.

A minute examination shewed no other source for the blood." (P. 397.)

Our readers will remember a case something similar to this, narrated by Mr. F. E. Hicks, and inserted in the Med. Quart. Review, vol. iii. p. 457 et seq.

The Biographical Sketch of the late Dr. Robert Jackson, inspector of military hospitals, affords a pleasing picture of what zeal and industry may do, unaccompanied by brilliant talents. Dr. Jackson was the first among the moderns who used the cold affusion to any considerable extent, and the first to introduce it into our military hospitals. Perhaps his best work was the one entitled "A View of the Formation, Discipline, and Economy of Armies; with an Appendix, containing Hints for Medical Arrangement in actual War," of which the second edition, in one volume quarto, appeared in 1824. He also wrote in the periodical Journals of the day: e. g. "A Case of Sphacelation of the Intestine," in the London Medical and Physical Journal, vol. vii.; "On the Virtues of the Spider's Web," idem, vol. xxi. and vol. xxii.; "On the Virtues of Eye-bright," idem, vol. xxiii. &c.

Dr. Jackson appears to have thought highly of the medicinal virtues of cobweb, and asserted that it was more effectual than bark in ague, or than opium in spasmodic diseases. Dr. Barnes, to whom we are indebted for this biography, says, "that not long ago he administered the cobweb, so much praised by Dr. Jackson, in a case of intermittent fever, without the least apparent benefit. The disease resisted both cobweb and quinine, and yielded readily to arsenic. Though it would be wrong to draw any inference from a single case, and that case an obstinate intermittent, it is not improbable that Jackson much over-rated the virtues and efficacy of the

remedy." (P. 416.)

Dr. Jackson died of a paralytic affection, in 1827, when he was in the seventy-seventh year of his age.

We wish we could transfer to our pages the whole of Dr. Symonds' Account of the Examination and Appearances of a Corpse, fourteen Months after Death, and of the Detection of Poisoning by Arsenic; but, as this must not be, we will content ourselves with a few long extracts.

"The face of the corpse was shrunken, and of a dingy yellow colour; the nose depressed; the orbits sunk; the cheeks collapsed and wrinkled; and the mouth looked as if open, in consequence of the retraction of the lips. The appearance, on the whole was not very unlike what would be presented by a wet bladder strained over a skull. The integuments of the trunk had a dull white aspect. The abdomen was considerably flattened, but the thorax

had maintained its usual convexity. An incision was made on each side, through the integuments and cartilages of the chest, and continued through the abdominal parietes, and the flap was turned

down over the pubes.

"Abdomen. The state of the alimentary tube excited the surprise of the by-standers, by its remarkable degree of preservation; every part being almost as distinct as if the inspection had been made at a very short period after death. The peritoneum was smooth, but rather less glistening than usual, and of a duller white. The intestinal canal appeared to contain neither fluid nor gas, and some of the convolutions were matted together. The omentum was firmer than in a recent body. The liver was shrunk to a fourth or fifth of its volume, and was of a very dark colour. The spleen was black, pretty firm, and; when cut into, stained the fingers with a sooty matter. The pancreas had lost considerably in bulk, but it had gained in consistence. Beneath it was found the splenic vein of usual firmness, and of a deep claret hue in its inner membrane.

"Dr. Riley removed the stomach, with the lower portion of the esophagus, the duodenum, the small and the large intestines, in separate portions; the rectum was taken out attached to the uterus and ovaries. On cutting the duodenum, a bright yellow substance escaped, but in very small quantity: the divided end being carefully compressed by Mr. Kelson's fingers. The parts thus separated were placed in clean vessels, and committed to the charge of

Mr. Herapath.

"Thorax. The diaphragm was entire, firm, and, in its muscular part, of a darker tint than ordinary. The pleuræ had undergone no visible change; but the left contained a few ounces of very dark red fluid. The viscera were extremely collapsed, and lay at the bottom of the cavity, from which, together with the smooth and shining appearance of the pleuræ, it was inferred that there had been no adhesions during life. The heart was so shrunk and flattened, that it had been accidentally cut across in the process of removing the æsophagus; its lining membrane had a reddishbrown colour, having evidently been dyed by a fluid of the same tint which was contained in its cavities.

"The head was removed by a section between the third and fourth cervical vertebræ, in case it might be required for identifying the individual by the teeth. The hair was of moderate length, brown and grey. The scalp peeled off very readily, as well as all the soft parts of the face, being converted into a thick saponaceous matter. The same adipocirous condition existed in the external parts of the neck. The soft parts of the fauces, and the pharynx with its neighbouring tissues, were greatly decomposed, being soft, in some parts semi-fluid, and of a dirty ash colour. The vertebræ were held together by their ligaments, pretty firmly, but the temporo-maxillary articulation was very loose." (P. 435.)

Adipocire was found on the trunk and extremities; formed,

probably, by the water which had entered the coffin. On leaving the churchyard, our author proceeded to the medical school, where Mr. Herapath was commencing his chemical investigations. The stomach

"had been cut open along the lesser curvature, and lay expanded on a clean deal board. The appearance which it presented was very striking. A thick and bright yellow coating, like paint, lay on the mucous membrane, particularly over the pyloric third: but it extended, more or less, with some small injections of unstained membrane, to within two or three inches of the great cul-de-sac. A portion of this yellow matter was dried, then mixed with a little charcoal and carbonate of soda, and put into a reducing tube, and heated. A metallic silvery-looking crust, characteristic of arsenic, soon made its appearance in the upper part of the tube. Mr. Herapath, by heating this crust, in contact with atmospheric air, converted it into crystals of arsenious acid, which yielded the usual precipitates to ammoniacal nitrate of silver, ammoniacal sulphate of copper, and sulphuretted hydrogen. This series of tests was repeated five times, for the satisfaction of various spectators, who went away fully convinced, not only of the detection of arsenic, but also of the skill of the operator. Mr. H. subsequently treated some mixed yellow-tinged matter, washed from the stomach, amounting to seventeen grains, in the following manner: thirteen grains were boiled in nitro-muriatic acid, which decomposed the animal matter, dissolved the phosphates, and the arsenic, and converted the sulphur into sulphuric acid. Ammonia having been added in sufficient quantity to supersaturate this acid, the mixture was acidulated with acetic acid, and filtered. A stream of sulphuretted hydrogen, passed into it, precipitated four grains of sulphuret of arsenic. Mr. H. stated, in his evidence, that the remaining four grains, out of the seventeen grains of mixed substance, would have yielded another grain of orpiment." (P. 439.)

The appearances in the stomach and intestines, after ablution, were unsatisfactory: it was the detection of the poison itself which showed the true nature of the case.

"The first medico-legal enquiry arising out of the above investigation was, whether any thing had been found to indicate the cause of death: and I need scarcely remark, after what has been already said, that the pathological appearances afforded nothing but negative evidence, and that the discovery of the poisonous substance itself was by far the most important fact, with reference to the judicial question. As soon as the metallic crust exhibited itself on the interior of Mr. Herapath's test-tube, information was sent to the coroner, who issued a warrant for the apprehension of the person upon whom the suspicions rested. The only question in this stage of the inquiry was, how far the presence of this substance might be presumed to have been the cause of dissolution. Was it sufficient, per se, in the absence of proof of any other dele-

terious agent, to account for death? Had it been introduced during the life of the individual? The answer to the latter question could not but be affirmative, as the parietes of the trunk were entire; or, if it were possible to conjecture that any one might have been ingenious and diabolical enough to have injected the arsenic by an elastic tube, passed along the mouth and gullet into the stomach, in order, at so remote a time, to support an imputation of poisoning, we still should find it difficult to explain how the matter could have reached the jejunum. The deleterious properties of the substance being admitted, was the quantity sufficient to occasion death? Had it been necessary to have answered this question, with reference to the quantity of arsenic which Mr. Herapath actually produced, the reply would have been all but The substance was orpiment: supposing its base to affirmative. have been arsenious acid, which was converted into a sulphuret by the action of sulphuretted hydrogen in the body, in accordance with actual observations of this kind by Christison, the discovery of five grains was nearly conclusive; or, supposing that it had been given in the form of orpiment, as sold in the shops, the answer would have been the same, since the latter preparation contains more than nine tenths of arsenious acid. But there was no necessity for limiting the question to so small a quantity, because much was wasted in the tests, and in the liquids employed in the ablution of the parts, while a considerable quantity remained incorporated with the tissues. It was thought probable by many, as well as by myself, that there must have been as much as a drachm altogether in the stomach and intestines. When pressed, in my examination, to state what I believed to have been the smallest quantity, I said that I felt persuaded that there could not have been less than half a drachm. The substance and the quantity, then, being adequate to a fatal effect, did it actually produce this result? In the absence of any proof whatever that any other fatal cause was in operation, there could be but one answer to this question. Nor do I think that the case would have been different, even had we discovered the traces of organic disease in some vital organ; since the experience of every practitioner must have taught him that the fatal results of such lesions have no determinate time, while the period of action for a poison is far more definite; and, consequently, where both are discovered, it is reasonable to ascribe death to the latter, though there is a remote possibility that the effect of the former might have accidentally taken place before the poison had time to complete its work. But there is scarcely any, even the most acknowledged mortal agent, which is not liable to the exception of such a possibility. On finding the appearances of intense enteritis, the inference that this disease was the cause of death might be questioned, if nothing was known of the history during life, on the possibility that some sudden external cause, such as a concussion, or a stroke of lightning, might have cut off the patient. Such refinements, however, are insufficient to divert

the belief from the more obvious conclusion: the highest degree of probability in such cases must amount practically to absolute certainty." (P. 456.)

The case in question (as our readers have guessed ere this,) is the one which furnished the materials for the late celebrated trial at Bristol: the corpse was that of Mrs. Smith, who had been poisoned by Mary Anne Burdock. Arsenious acid may be converted into the yellow sulphuret by the contents of the stomach; but in this instance it was the yellow sulphuret (or, at least, a mixture of that and arsenious acid,) which was

bought and administered.

Dr. Symonds tried several experiments on dogs and rabbits and a rat, with sulphuret of arsenic, procured (if we understand him rightly,) from the very parcel from which Mary Anne Burdock had been supplied. He calls it a poison of very great activity; yet these experiments hardly seem to show it. Fifteen grains were given to each of two rabbits, (one of which survived it,) and forty grains to another; thirty grains to a dog, thirty-five to another, and eight or nine to the rat. All these animals died, it is true; but we should call the doses rather large, especially when compared with the dose (a drachm?) which destroyed Mrs. Smith. We are not quite sure, however, that it was with the sulphuret of arsenic from the same parcel that Dr. Symonds performed these experiments; and moreover it appears, from Mrs. Burdock's confession, that she had administered another dose of arsenic to her victim on the previous day.

The last paper is A Return of Medical and Surgical Diseases, treated at H. M. Colonial Hospital, Hobart Town, Van Diemen's Land, for the years 1821 to 1831, by James Scott, Esq., Colonial Surgeon. The number of cases in Mr. Scott's tables amounts to upwards of 30,000. He observes,

"Vaccine virus is introduced with difficulty, and soon becomes ineffective. Of syphilis I have seen but few cases (not more than six of the primary symptoms,) in the island; and even those were imported from Sydney and the Isle of France: they were never known to extend.

"For phthisical patients the climate is too variable, and consequently too stimulating, and, when the disease is once fully formed, the symptoms become severe, and the sufferer rapidly sinks.

"From the peculiarity of the climate, scrofula and glandular diseases are rare. Idiopathic intermittent fever, malignant cynanche, smallpox, measles, scarlet fever, hydrophobia, &c. &c. have not been met with in the colony. Hooping cough was once introduced, and, for a short time, extended as rapidly and exten-

sively as in England, but gradually became milder, and in a few months disappeared.

"Parturition is, in general, rapid and easy, and followed by a

favourable restoration to health.

"The diseases, both acute and chronic, are generally mild, and of comparatively short duration, and yield more easily to the usual remedies than in any other country where I have practised, or of which I have read.

"The general duration of life is not yet known, but is expected to be high, on account of the mild temperature and other general qualities of the climate, which seem to have a beneficial tendency

to preserve the animal functions in order." (P. xii.)

Though the extreme length of this review will show the sense that we entertain of the merits of the volume, we are unwilling to dismiss it with merely praise by implication. These Transactions are among the signs of a new and happier era in the practice of physic; for they are an irrefragable proof of that diffusion of really useful knowledge which, in spite of the opposition of declared enemies, and the dangerous aid of lukewarm friends, is the most prominent characteristic of the age. Let the Provincial Association continue its generous exertions; and at one time we shall see fresh sparks of knowledge struck out by the friendly collision of genius and industry; at another, the Society will perform the humbler but not less important task of carrying each practical refinement of our art (hitherto the splendid monopoly of peopled cities,) into the remotest nooks of the kingdom.

Human Physiology, by John Elliotson, M.D. Cantab., F.R.S., &c. With which is incorporated much of the Elementary Part of the Institutiones Physiologicæ of J. F. Blumenbach, M.D., F.R.S., Professor in the University of Göttingen. Illustrated with numerous Woodcuts. Fifth Edition.—London, 1835. 8vo. Part I. pp. 302.

This, it appears, is the fifth edition of Dr. Elliotson's Physiology; but how it happens to be so, is somewhat enigmatical. The commentaries of the editor having gradually extended till they form the larger and more important part of the whole, the work may now fairly enough be entitled Elliotson's Physiology; but, seeing that, in the four preceding editions, it has been known to the world as Blumenbach's, we cannot perceive that the present is any thing more than the first edition of Elliotson's; and the only object in calling it the fifth appears to be, that the next may pass for the sixth: this is a very good way of gaining a march upon the public, but whe-

ther it be strictly consonant with literary honesty, we must leave to the moral philosophers to determine.

So much for bibliography, and now for physiology, of which the work before us, though destitute of any striking claims to originality, affords, on the whole, a learned and

judicious compendium.

In reviewing systematic works of this kind, involving a great variety of subjects, we are obliged either to confine ourselves to a mere notice of their general merits, or to select a few topics for more particular discussion: we prefer the latter plan, because it affords us, from time to time, an opportunity of dilating on such points as seem to require further illustration,—of introducing matters that may have been altogether overlooked,—and, lastly, of putting the student on his guard against those gratuitous hypotheses, derived rather from the spirit of the time than the observation of nature, some one of which has been prevalent in every age, giving an impulse to science in a wrong direction; though not, perhaps, without some beneficial tendency, by enlisting the fancy, and even the passions, in the cause of philosophy, which might lose its interest, if reason alone were always engaged in it.

Our object, in short, is to contribute what little we may to the progress of physiology; and, if we succeed in any degree in the attainment of this object, we care not if we should sometimes be found wanting in our capacity of critics: nay, though our articles should occasionally be censured as having little or no reference to the works with whose titles they are

associated.

We have so frequently adverted to the leading topics of special physiology, that we shall not at present enter on such themes as respiration, animal heat, &c., on which all has been said that can be said, till new facts afford new materials for discussion. In this article we shall direct our observations where they seem most likely to be useful, without any reference to the connexion of the subjects.

Characteristics of Man.

These are mental and corporeal: on the former, Dr. Elliotson makes the following remarks.

"In judging of the mental faculties of mankind, not merely those should be considered which an unfortunately situated individual may display, but those which all the race would display under favourable circumstances. A seed and a pebble may not on a shelf appear very dissimilar, but, if both are placed in the earth, the innate characteristic energies of the seed soon became conspicuous. A savage may in the same manner seem little superior to an orang

utan, but, if instruction is afforded to both, the former will gradually develope the powers of our nature in their noble superiority, while the latter will still remain an orang utan. The excellence of man's mind demonstrates itself chiefly by his voice and hands. Witness the infinite variety and the depth of thought expressed by means of words: witness his great reasoning powers, his ingenuity, his taste, his upright, religious, and benevolent, feelings, in his manufactories, his galleries of the fine arts, his halls of justice, his temples, and his charitable establishments. Besides the qualities common to all animals, each of which he, like every animal, possesses in a degree peculiar to himself, and some indeed in a degree very far surpassing that in which any brute possesses them, for instance, benevolence, mechanical contrivance, the sense for music and language, and the general power of observation and inference respecting present circumstances, he appears exclusively gifted with at least feelings of religion and justice, with taste, with wit, and with decided reflecting faculties of comparing and reasoning into causes." (P. 7.)

It is observed by Galen, that, the body being the organ of the mind, the corporeal structure of every animal is adapted to its particular dispositions and faculties.* This is true; but it is no less so, that the mind is in a great degree dependent for its development on the peculiarities of bodily confor-While it is probable, as Locke has taught, that we originally derive all the materials of thought from the external world, through the medium of the senses, it is still more evident that the very organs which we use to express our thoughts and emotions become the means of increasing indefinitely the number of our ideas. The principal organs of this kind are those of speech and the hand. There is no doubt that "the excellence of man's mind demonstrates itself chiefly by his voice and hands;" but is it not from the possession of these singular endowments that much of his mental excellence is derived? This subject has not been sufficiently attended to by naturalists. The physiology of speech, and the philosophy of language, have yielded materials for much interesting disquisition: the mechanism of the hand supplied Galent with the subject of the most masterly anatomical description that ancient or modern times have produced, and has recently been placed in a beautiful relation to natural theology by one of the most accomplished writers of the present day; but the *united* influence of speech and the hand, on the intellectual and moral development of man, has not generally been sufficiently recognized.

Language is the great medium through which knowledge

[·] De Usu Partium, lib. i.

is first communicated, but the hand renders it cumulative and transmissible from one generation to another. In how many ways does this wonderful organ embody and multiply the products of thought! It gives permanency to the record of the historian, to the song of the poet, and the precepts of the It reveals the fine conceptions of the painter and the sculptor, which, but for its aid, must have remained for ever hidden in the depths of the creative mind, and sends them forth, to generate in other minds new forms of beauty. Without the hand, in short, knowledge could only have been obscure and traditionary: all the imitative arts must have been rude, and several of them could have had no existence: many of the chief sources of thought would have remained unopened, and, if man had ever attained to civilization, it must have been by a process inconceivably slow and toilsome. For a brief but comprehensive and original view of the advantages which man derives from the cooperation of the hand with the power of articulate speech, we beg to refer the reader to Dr. Haslam's work on "Sound Mind;" a work no less remarkable for vigour of thought than for elegance of style, but which, we fear, is less familiar to the profession than it deserves to be.

In comparing the mental faculties of man and the lower animals, much confusion has arisen from the undefined use of the terms reason and instinct, and from opposing them to each other, as if instinct were to animals what reason is to man. The truth is, the two powers are entirely distinct in kind, and both exist in man as well as in animals, although in the former reason, and in the latter instinct, predominates. Dr. Fleming is the only author with whom we are acquainted who has treated the subject of instinct philosophically, and shewn satisfactorily wherein the instincts of man differ from his intellectual powers.

"The impressions," says this author, "which are made upon us by external objects, or the ideas of reflection suggested by memory, when they are the subjects of our intellectual powers, do not necessarily lead to any control over the body in consequence of an act of volition. Between impression and action, there is always a process of thinking, varying greatly in its nature and duration, according to the subject, but absolutely necessary to connect the one with the other.

"In the powers which we are now to consider, the case is very different. Here action follows impression immediately. There is no thinking,—no deliberation. There is likewise a difference in the nature of the action in the two cases. There is an effort required to perform that which is the result of the intellectual pro-

cess, whereas, the action which follows in reference to our instinctive powers, is spontaneous, or rather, it requires an effort to

resist obedience to the impulse.

"As the impressions, in the case of the intellectual powers, are variously modified by the thinking process, the corresponding actions exhibit, in their character, a great degree of variety. The impressions in the case of the instinctive powers, suffering no intermediate modifications, produce actions characterized by great uniformity.

"In many cases, when an impression is produced upon us, which, as belonging to the instinctive powers, would have been followed by action, the intellectual powers interpose their control, and the impression is surveyed before action is permitted. But, as might have been expected, such action is less varied, than when originally the result of an intellectual process, but more irregular than in those cases in which impression and action follow instantaneously. In the one case, the action is modified by the impression; in the other, by the changes the impression has undergone by

thought.

"The powers to which we are now directing our attention, are usually denominated, by the writers on the science of mind, ACTIVE POWERS. To this appellation, however, there are strong objections. There are other powers which excite to action, inseparably connected with our constitution, which do not belong to this class. Some actions are produced by irritability, of which we are not conscious. Action is likewise produced by the information obtained by the senses, through the medium of thought, or in consequence of the ideas of reflection which spontaneously arise in the mind. Hence the difference between the intellectual and instinctive powers, is not so distinctly marked in the acts of volition as in the manner in which these acts are excited." (Philosophy of Zoology, vol. i. p. 241.)

The consideration of the human instincts opens an extensive, but hitherto little cultivated, field of inquiry. The study of their natural influence on our physical and moral constitution, and of the effects arising from their morbid exaltation, deficiency, or perversion, has an important relation to all those investigations wherein we have to regard man in a double light,—as a material organism, and as an intellectual and moral being: hence its bearing on the subject of insanity, to which we ventured to allude in our late review of Dr. Prichard's work.

As the result of his superior reasoning faculties, man is the only animal capable of religion. Dr. Elliotson justly observes, that the power of investigating causes belongs exclusively to man, and on this depends the recognition of a *first cause*, which is the basis of all religion. The notion that religion is

innate, and the idea of a Deity impressed on the human mind by the Creator, is completely overturned by the reflection that, if God had impressed on the minds of his creatures an idea of himself, it would certainly have been a correct one: whereas, we know well that any thing like a just conception of the Deity among mankind has resulted only from the light of divine revelation, or from the deductions of reasoning in a very advanced period of philosophy. (Vide Locke on Human Understanding, vol. i. p. 57.)

The following account of the corporeal characteristics of man is so correct and comprehensive, that we quote it entire,

without comment or addition.

"The corporeal characteristics of mankind are not less striking and noble. Among the beings beheld by Satan in Milton's Paradise,

"Two of far nobler shape, erect and tall, Godlike erect, with native honour clad, In naked majesty seem'd lords of all."

"The erect posture is natural and peculiar to man. All nations walk erect, and, among those individuals who have been discovered in a wild and solitary state, there is no well authenticated instance of one whose progression was on all-fours. If we attempt this mode of progression, we move either on the knees or the points of the toes, throwing the legs obliquely back to a considerable distance; we find ourselves insecure and uneasy; our eyes, instead of looking forwards, are directed to the ground; and the openings of the nostrils are no longer the lower part of the nose, in a situation to receive ascending odorous particles, but lie behind it. ferior extremities, being of much greater length, in proportion to the others and to the trunk, than the posterior of brutes with four extremities, even in children in whom the proportion is less, are evidently not intended to coincide with them in movement; they are much stronger than the arms, obviously for the purpose of great support: the presence of calves, which are found in man alone, shows that the legs are to support and move the whole machine; the thigh bones are in the same line with the trunk, in quadrupeds they form an angle, frequently an acute one; the bones of the tarsus become hard and perfect sooner than those of the carpus, because strength of leg is required for standing and walking sooner than strength of arm and hand for labour; the great toe is of the highest importance to the erect posture, and bestowed exclusively on mankind; the os calcis is very large, particularly at its posterior projection, for the insertion of the strong muscles of the calf, and lies at right angles with the leg; we alone can rest fully upon it, and in fact upon the whole of the tarsus, metatarsus, and The superior extremities do not lie under the trunk as they would if destined for its support, but on its sides, capable of motion in every direction towards objects; the fore-arm extends itself

outwards, not forwards, as in quadrupeds, where it is an organ of progression; the hand is fixed not at right angles with the arm, as an instrument of support but in the same line, and cannot be extended to a right angle without painfully stretching the flexor tendons; the superior extremity is calculated in the erect posture for seizing and handling objects, by the freedom of its motions, by the great length of the fingers above that of the toes, and by the existence of the thumb, which, standing at a distance from the fingers and bending towards them, acts as an opponent, while the great toe is, like the rest, too short for apprehension, stands in the same line with them, and moves in the same direction: were our hands employed in the horizontal posture, they would be lost to us as grand instruments in the exercise of our mental superiority. Quadrupeds have a strong ligament at the back of the neck to sustain the head; in us there is no such thing, and our extensor muscles at the back of the neck are comparatively very weak. They have the thorax deep and narrow, that the anterior extremities may lie near together and give more support; the sternum too is longer, and the ribs extend considerably towards the pelvis to maintain the incumbent viscera; our thorax is broad from side to side, that the arms being thrown to a distance may have greater extent of motion, and shallow from the sternum to the spine; and the abdominal viscera, pressing towards the pelvis rather than towards the surface of the abdomen in the erect attitude, do not here require an osseous support. The pelvis is beautifully adapted in us for supporting the bowels in the erect posture; it is extremely expanded, and the sacrum and os coccygis bend forwards below: in brutes it does not merit the name of pelvis; for, not having to support the abdominal contents, it is narrow, and the sacrum inclines but little to the pubes. The nates, besides extending the pelvis upon the thigh bones in the erect state of standing or walking, allow us to rest while awake in the sitting posture, in which, the head and trunk being still erect, our organs of sense have their proper direction equally as in walking or standing; were we compelled to lie down like quadrupeds, when resting during the waking state, the different organs of the face must change their present situation to retain their present utility, no less than if we were compelled to adopt the horizontal progression; and, conversely, were their situation so changed, the provision for the sitting posture would be comparatively useless.

"While some, perversely desirous of degrading their race, have attempted to remove a splendid distinction by asserting that we are constructed for all-fours, others with equal perverseness and ignorance have asserted that monkeys are destined for the upright posture. The monkey tribe, it is true, maintain the erect posture less awkwardly than other brutes with four extremities, but they cannot maintain it long, and, while in it, they bend their knees and body; they are insecure and tottering, and glad to rest upon a stick; their feet, too, instead of being spread for support, are coiled

up as if to grasp something. In fact their structure proves them to be neither biped nor quadruped, but four-handed, animals. They live naturally in trees, and are furnished with four hands for grasping the branches and gathering their food. Of their four hands the posterior are even the more perfect, and are in no instance destitute of a thumb, although, like the thumbs of all the quadrumana, so insignificant as to have been termed by Eustachius, 'omnino ridiculus;' whereas the anterior hands of one variety (simia paniscus) have not this organ. The whole length of the orang utan, it may

be mentioned, falls very much short of ours.

"It was anciently supposed that man, because gifted with the highest mental endowments, possessed the largest of all brains. But as elephants and whales surpass him in this respect, and the sagacious monkey and dog have smaller brains than the comparatively stupid ass, ox, and hog, the opinion was relinquished by the moderns, and man was said only to have the largest brain in proportion to the size of his body. But as more extensive observation proved canary and other birds, and some varieties of the monkey tribe, to have larger brains than man in proportion to the body, and several mammalia to equal him in this particular, and as rats and mice too surpass the dog, the horse, and the elephant, in the comparative bulk of their brains, this opinion also gave way, in its turn, to that of Sömmerring, that man possesses the largest brain in comparison with the nerves arising from it. This has not yet been contradicted, although the comparative size of the brain to the nerves originating from it (granting that they originate from it) is not an accurate measure of the faculties, because the seal has in proportion to its nerves a larger brain than the house-dog, and the porpoise than the orang utan.

"As the human brain is of such great comparative magnitude, the cranium is necessarily very large and bears a greater proportion to the face than in any other animal. In an European the vertical section of the cranium is almost four times larger than that of the face (not including the lower jaw); in the monkey it is little more than double; in most feræ, nearly equal; in the glires, solipedes, pecora, and belluæ, less. The faculties, however, do not depend upon this proportion, because men of great genius, as Leo, Montaigne, Leibnitz, Haller, and Mirabeau, had very large faces, and the sloth and seal have faces larger than the stag, horse, and ox, in proportion to the brain, and the proportion is acknowledged by Cuvier to be not at all applicable to birds. We are assisted in discovering the proportion between the cranium and face by the facial angle of Camper. He draws two straight lines, the one, horizontal, passing through the external meatus auditorius and the bottom of the nostrils; the other, more perpendicular, running from the convexity of the forehead to the most prominent part of the The angle which the latter, the proper facial line, upper jaw. makes with the former, is greatest in the human subject, from the comparative smallness of the brain and the great development of

the mouth and nose in brutes. In the human adult this angle is about from 65° to 85°; in the orang utan about from 55° to 65°; in some quadrupeds 20°; and in the lower classes of vertebral ani-

mals it entirely disappears.

"Neither is it to be regarded as an exact measure of the understanding, for persons of great intellect may have a prominent mouth; it shows merely the projection of the forehead, while the cranium and brain may vary greatly in the size of other parts; three fourths of quadrupeds, whose crania differ extremely in other respects, have the same facial angle; great amplitude of the frontal sinuses, as in the owl and hog, without any increase of brain, may increase it, and for this reason Cuvier draws the facial line from the internal table of the frontal bone.

"In proportion as the face is elongated, the occipital foramen lies more posteriorly; in man consequently it is most forward. While in man it is nearly in the centre of the base of the cranium, and horizontal, and has even sometimes its anterior margin elevated; in most quadrupeds it is situated at the extremity of the cranium obliquely, with its posterior parts turned upwards, and is in some completely vertical. On this difference of situation, Daubenton founded his occipital angle. He drew one line from the posterior edge of the foramen to the lower edge of the orbit, and another, in the direction of the foramen, passing between the condyles and intersecting the former. According to the angle formed, he established the similarity and diversity of crania. The information derived from it in this respect is very imperfect, because it shows the difference of the occiput merely. Blumenbach remarks that its variations are included between 80° and 90° in most quadrupeds which differ very essentially in other points.

"The want of the ossa intermaxillaria has been thought peculiar to mankind. Quadrupeds, and nearly all the ape tribe, have two bones between the superior maxillary, containing the dentes incisores when these are present, and termed ossa intermaxillaria, incisoria, or labialia. But these do not exist universally in them. Man only has a prominent chin: his lower jaw is the shortest, compared with the cranium, and its condyles differ in form, direction, and articulation, from those of any brute: in no brute are the teeth arranged in such a close and uniform series; the lower incisores, like the jaw in which they are fixed, are perpendicular, a distinct characteristic of man, for in brutes they slope backwards with the jaw bone; the canine are not longer than the rest, nor insulated as in monkeys; the molares differ from those of the orang utan and of all the genus simia by their singularly obtuse projections.

"The slight hairiness of the human skin in general, although certain parts, as the pubes and axillæ, are more copiously furnished with hair than in brutes; the omnivorous structure of the alimentary canal; the curve of the vagina corresponding with the curve of the sacrum formerly mentioned, preventing woman from being, as brute females are, retromingent; the peculiar structure of the human uterus and placenta; the length of the umbilical chord and the existence of the vesicula umbilicalis until the fourth month; together with the extreme delicacy of the cellular membrane; are likewise structural peculiarities of the human race. The situation of the heart lying not upon the sternum, as in quadrupeds, but upon the diaphragm, on account of our erect position, the basis turned not, as in them, to the spine, but to the head, and the apex to the left nipple; the absence of the allantois, of the panniculus carnosus, of the rete mirabile arteriosum, of the suspensorius oculi; and the smallness of the foramen incisivum, which is not only very large in brutes, but generally double, though not peculiarities, are striking circumstances.

"Man only can live in every climate; he is the slowest in arriving at maturity, and, in proportion to his size, he lives the longest of all mammalia; he only procreates at every season, and, while in celibacy, experiences nocturnal emissions. None but the human

female menstruates.

"Man, thus distinguished from all other terrestrial beings, evidently constitutes a separate species. For 'a species comprehends all the individuals which descend from each other, as from a common parent, and those which resemble them as much as they do each other; and no brute bears such a resemblance to man." (F. 8.)

Mind. In the third chapter, containing a "general view of the organs, functions, and powers of the human body," our author introduces some remarks on mind, which are not characterized by his usual good sense, and in which he is manifestly led astray by phrenology, the pseudo-science, of which he is a well-known supporter. As we shall probably have occasion, in reviewing the second part of Dr. Elliotson's work, to speak at some length on the subject of phrenology, it may not be out of place here to offer some reasons for dissenting from the too-prevalent materialism of the day, which is usually, though not necessarily, connected with that fantastic hypothesis.

The following is a sample of our author's philosophy of the

mind.

"The ANIMAL FUNCTIONS demonstrate MIND. This is seated in the brain, to which the spinal marrow, nerves, and voluntary muscles, are subservient. MIND is the functional power of the living brain. As I cannot conceive life any more than the power of attraction unless possessed by matter, so I cannot conceive mind unless possessed by a brain, or by some nervous organ, whatever name we may choose to give it, endowed with life. I speak of terrestrial or animal mind; with angelic and divine nature we have nothing to do, and of them we know, in the same respects, nothing. To call the human mind positively a ray of the divinity, (Divina particula aura, Ex ipso Deo decerptus, Ex universa mente deli-

batus,) appears to me absolute nonsense. Brutes are as really endowed with mind, with a consciousness of personality, with feelings, desires, and will, as man. Every child is conscious that it thinks with its head, and common language designates this part as the seat of mind. Observation shows that superiority of mind in the animal creation is exactly commensurate with superiority of brain; that activity of mind and of brain are coequal; and that, as long as the brain is endowed with life, and remains uninjured, it, like all other organs, can perform its functions, and mind continues; but, as in all other organs, when its life ceases, its power to perform its function ceases, and the mind ceases; when disease or mechanical injury affects it, the mind is affected, inflammation of the stomach causes vomiting, of the brain delirium, a blow upon the loins suppression or alteration of the urine, a blow upon the head stuns; if originally constituted defective, the mind is defective; if fully developed, and properly acted on, the mind is vigorous: accordingly, as it varies with age, in quality and bulk, is the mind also varied, the mind of the child is weak and very excitable, of the adult vigorous and firm, and of the old man weak and dull, exactly like the body; and the character of the mind of an individual agrees with the character of his body, being equally excitable, languid, or torpid, evidently because the brain is of the same character as the rest of the body to which it belongs, the female mind exceeds the male in excitability as much as her body; the qualities of the mind are also hereditary, which they could not be, unless they were, like our other qualities, corporeal conditions; and the mind is often disordered upon the appearance of a bodily complaint, just as other organs, besides the brain, are affected under similar circumstances; the retrocession of an eruption may affect the lungs, causing asthma; the bowels, causing enteritis; or the brain, causing insanity; phthisis and insanity sometimes alternate with each other, just like affections of other organs; the laws of the mind are precisely those of the functions of all other organs, a certain degree of excitement strengthens it; too much exhausts it; physical agents affect it, and some specifically, as is the case with other functions, tor example, narcotics. The argument of Bishop Butler, that the soul is immortal and independent of matter, because in fatal diseases the mind often remains vigorous to the last, is perfectly groundless; for any function will remain vigorous to the last, if the organ which performs it is not the seat of the disease, nor much connected by sympathy, or in other modes, with the organ which is the seat of the disease, the stomach often calls regularly for food, and digests it vigorously, while the lungs are almost completely consumed by ulceration. All the cases that are adduced to prove the little dependence of the mind upon the brain, are adduced in opposition to the myriads of others that daily occur in the usual course of nature, and are evidently regarded as extraordinary by those who bring them forward. An exact parallel to each may be found in the affections of every other organ, and each admits of so

easy an explanation, that it may be always truly said, 'Exception probat regulam.'" (P. 32.)

We have in this passage a direct appeal to consciousness, in proof of the assertion that the brain thinks. "Every child is conscious that it thinks with its head:" à fortiori, then, every man is conscious that he thinks with his head. Now, either this is not true, or we must relinquish all title to humanity; since, after the most careful attention, we cannot detect in ourselves any consciousness whatever of thinking with any one part of our body, rather than another, or of thinking with any part of our body at all. We have here a right to meet our author's assertion with a flat negation, without any reasoning about the matter; and we say, peremptorily, that every man is not conscious of thinking with his head; for we are men, but are not conscious of any such thing.

We do not at all mean to impugn Dr. Elliotson's consciousness: for aught we know, his head may lucubrate, and be fully aware of its function; but we can assure the Doctor, that if his head thinks the most difficult point in the philosophy of man is to be settled by a few random assertions, it

thinks wrong.

Our author illustrates his views by divers quotations from bishops, philosophers, and wags, whose authority on this subject may be allowed about equal weight; since, as Samuel Johnson truly observes, "on the arena of conjecture all men stand equal, who are equally well informed;" and since, as we shall endeavour to shew, no man living possesses any real information on the matter: the arguments of the immaterialist being inconclusive, from the abstract nature of the inquiry; and the facts of the materialist being as explicable on one

hypothesis as the other.

Conceding, what might very fairly be disputed, that the manifestations of the mind are exactly commensurate with the development of the brain, and uniformly disordered by its lesions, the cause of the materialist gains nothing by the admission; for if the brain be, as few will deny, the medium through which the thinking principle receives all those impressions from which ideas are derived,—the storehouse, as it were, in which the primary materials of thought are laid up,—it follows, of course, that, the more perfectly the brain is organized, the more perfect will be the materials of thought, and the higher the development of the mind; that, when its functions are disordered, the operation of the mind must be deranged; and that, when they cease, the manifestations of the mind, connected with our present state of existence, must cease along with them. But it by no means follows that,

because thought ceases to be appreciable to us as corporeal beings, the thinking principle ceases to exist, or that, because a dead brain no longer supplies the materials of thought, or dead organs of speech the means of communicating it, the disembodied spirit may not find other materials and other means of communication.

In reasoning on the nature of mind, our author evinces a stronger addiction to his own hypothesis than to the principles "With angelic and divine nature," he tells us, "we have nothing to do:" which is tantamount to saying, that, in considering the hypothesis of materialism, we are to put out of the question the very thing that militates most strongly against it; a very simple way of establishing any position. We admit that we have nothing to do with angelic minds, because we know nothing about them; but the divine mind is, in several of its operations, very distinctly revealed to us in creation. Every man, who uses his understanding, is convinced that the Deity wills and adapts causes to effects, to accomplish his will; and, if we go no further even than this, we may perceive, in the divine mind, operations similar in kind to those of our own: again, no man in his senses believes that the Deity has a brain; hence it is clear that there is at least one mind, and that the most perfect in the universe, whose manifestations are independent of a brain.

If it be asked, what relation has all this to the physiology of the human mind, we answer, that it bears upon it very emphatically, by shewing that mind is not in its essence necessarily dependent on organization; and, consequently, that if the facts adduced by the materialist to prove such dependence in the instance of the human mind, be altogether equivocal, and equally reconcileable with an opposite supposition, the balance of reasoning evidently inclines against him.

Whoever views this subject candidly and philosophically will, we think, admit that the question cannot be resolved in the present state of our knowledge: at the same time, we do not wish to disguise our conviction that reasoning, as far as

it goes, is extremely adverse to the materialist.

Independently of the considerations already urged, there seems little probability that the mental phenomena depend on the brain as their efficient cause, from the absence of all intelligible relation between the cause and the supposed effect. The brain is a material organ; the phenomena of the mind have nothing in common with matter. We defy any man to shew us a single unequivocal instance in which thought, or the smallest approximation to it, results from any material agency, however powerful, or however subtle. The

powers of inert nature work their wonders in the earth and air: unknown atmospheric causes generate aeroliths, for whose production we can by no means account; and the diamond is formed in its bed, by a process which we can neither understand nor imitate; but was an *idea* ever generated in the air? was a *syllogism* ever discovered in the bowels of the earth?

In living bodies, again, we meet with results still more complex and wonderful than those produced by inanimate nature, but without approximating a step nearer to thought. The blood, for example, is quite different from any thing to be found in inanimate nature, yet it is a strictly material product: we do not know whether it is alive or not; there are many things about it that we do not comprehend; but it is nevertheless perfectly cognizable to our senses, and is no more like a production of the mind than so much pure water. The muscles of the larynx present an inconceivable rapidity and variety of motion, but it is still mere motion; a phenomenon as strictly mechanical as the falling of the rudest stone to the earth. In short, let

"science search on weary wing, By shore and sea, each mute and living thing,"

and she will find only material results from material agencies, in the most complex as in the simplest arrangements of

matter, whether organized or inorganic.

When, therefore, we are told that the brain produces results differing not in degree but in kind,—in their very nature and essence,—from those produced by any other material substance, we require strong proof of such an allegation; and when we find nothing adduced but a series of phenomena, which accord equally well with either of two very opposite hypotheses, we are certainly not inclined to cede the deductions of our reason, though confessedly inconclusive, in favour of a mere opinion, which happens to be at present in fashion; nor can we sufficiently deprecate the unphilosophical manner in which Dr. Elliotson dogmatises on a subject, of which

"All that we know is, nothing can be known."

Different Stages of Development in the Animal Body.

This is a topic of considerable interest in general physiology, but which till lately has entirely escaped attention, from the want of due discrimination between simple growth and development. It is not alluded to by our author, nor treated of by any systematic writer on physiology; and for that very reason we introduce it here. The scientific world is indebted

to M. Isidore G. St. Hilaire, for tracing an outline of the subject, which it is to be hoped he may find materials for filling up. We make no apology for the following translation from his work on the Anomalies of Organization.

"In that series of phenomena, hitherto so little observed, but in reality so worthy of attention, which, in a certain number of years, mark the transition from infancy to youth, and from this to adult age, we should carefully distinguish those connected with simple growth of the frame, from those which characterize its development. Growth results from the gradual augmentation of all parts of the body, quite independently of their number, structure, or functions: development, on the contrary, consists essentially in a modification,—a change more or less obvious. In simple growth, all the previous conditions of organs are preserved, except their volume: every true development, on the contrary, may be compared to the metamorphoses of the fœtus, though the changes be less extensive and remarkable. The first appearance of the deciduous teeth, that of the permanent teeth,—and the period of puberty, are the three principal epochs of development in man, and the animals most nearly allied to him. After each of these, the general growth is usually more or less retarded. Thus, the growth is extremely rapid till the appearance of the first set of teeth; somewhat less so from this time till the appearance of the second set; and still a little less till the period of puberty; after which it undergoes a remarkable diminution. When, indeed, the individual has attained complete puberty,—that is to say, perfect aptitude for the generative functions,—the increase of stature becomes almost insensible, or is entirely arrested.

"Growth and development, although essentially distinct, have nevertheless a very intimate relation to each other. A certain degree of growth of the whole frame induces a new development, and every development, in its turn, indicates the termination of one period of growth, and the commencement of another, in which the growth proceeds more slowly; as if the apparatus newly developed had appropriated, and concentrated in itself, a great part of the formative energy, which was before more equally distributed among all the organs; or, (in more exact terms, and banishing the abstract phraseology too long used by anatomists,) because the apparatus newly developed necessarily diminishes the activity of

the general nutrition, by the increased activity of its own.

"These observations apply universally, as well to the earlier periods of development as to that of puberty. If an infant is remarkable for the rapidity of its growth, and surpasses the ordinary dimensions at the age of two, three, or four months, the teeth almost always speedily appear; and it has even been sometimes observed, that, in very large children, the development of the teeth has preceded birth, or followed it almost immediately. On the other hand, where the general growth of an infant is unusually slow, there is almost always a corresponding retardation of the dentition.

"The same remarks hold good with respect to the second dentition as the first; and a comparison of the different species of animals most nearly allied to man in their organization, discovers the same constant relation between the rapidity of the general growth and the protrusion of the deciduous and permanent teeth. But it is especially between puberty and the general growth that an intimate and very remarkable relation subsists. It may be stated, in a general way, that very precocious growth induces also premature puberty, while complete puberty, in its turn, puts a stop to the general growth. Thus we find, as it were, a circle formed by a series of remarkable phenomena, of which one, resulting from that which precedes it, reacts upon the latter, and causes its cessation." (Histoire, générale et particulière, des Anomalies de l'Organisation, tom. 1er. p. 188.)

These views are very felicitously applied by M. St. Hilaire to the explanation of dwarfishness and gigantic stature: they are, however, no less important in their bearing upon other

physiological subjects.

Even in the vegetable kingdom, facts are not wanting illustrative of the relation of growth to development. Thus, the development of the flowers in plants may, in some sort, be considered as their puberty; and the very rapid growth of annuals previous to this development, and the cessation of growth which follows it, present an interesting parallel with the phenomena of the corresponding period in animals. The developments which occur in animals and vegetables constitute one of the most remarkable distinctions between organised and inorganic bodies.

"All animals and vegetables," says Professor Tiedemann, "as soon as they proceed from the shoot, from the reproductive corpuscule, from the ovum or the seed, appear in a simple form, which they gradually leave, to take a more complicated one; this is accompanied by an increase in the diversity and intensity of their manifestations of activity. All organic bodies, whose life is not curtailed or interrupted in any way, exhibit three distinct periods in their existence, that of gradual growth, or youth, of complete development, or sexual maturity, and that of decay, or old age, which finishes in death. In this manner, the representatives of all the vegetable and animal species are included in a continual series of changes, the duration of which varies infinitely in the different groups of living bodies, being extended from the space of a few days to entire ages. To be born, to be developed, to engender, and to die, are acts occurring uninterruptedly in the domain of organic bodies, first calling into existence, then repelling into nothingness the individuals representing the species. These changes, which happen only once in each individual, are dependent on the mode of action of the organic powers, whose activity commences in its minimum of intensity, by degrees arrives at the maximum, is exhausted by the very fact of its exercise, and ends by being

extinguished.

"In inorganic bodies no changes occur that can be compared to those of the periods of life or the ages. Substances once united into crystals, according to the laws of attraction, and whose molecules are held together by cohesion, remain in their respective forms, without our perceiving in them thenceforward any phenomena presenting even a distant analogy to those of development and the ages of living bodies. Crystals of themselves undergo no changes that terminate in their ruin and destruction in a certain lapse of time. If they last a few hours only, or thousand of years, it is dependent altogether on accidental circumstances, according as they enter into connexion with matters which have a stronger affinity for the substances that constitute them." (Tiedemann's Physiology, translated by Drs. Gully and Lane, p. 45.)

The different kinds and periods of development have not hitherto been regarded in due connexion with each other, and with the general growth; but an intelligent inquirer, keeping in view the theory of St. Hilaire, and pursuing it through the whole range of comparative physiology, might possibly suc-

ceed in establishing some important generalizations.

But it is time to wind up this article; and we are happy to be able to do so with a high commendation of the work whose title stands at the head of it. We can conscientiously recommend Dr. Elliotson's Physiology as an accurate and comprehensive digest of the science, and an excellent guide to the student on all subjects that have nothing to do with the philosophy of the mind. On this alone, notwithstanding our author's materialism, we would strongly advise the young physiologist to regard all that he says as quite immaterial.

On the Deaths of some eminent Persons of Modern Times. By Sir Henry Halford, Bart., M.D., G.C.H., President of the Royal College of Physicians.—London, 1835. Small 8vo. pp. 40.

The present essay is conspicuous for the same elegance of style, and the same medical tact, which have distinguished all the writings of the learned President of the College of Physicians: the subject, too, is a particularly happy one. Medicine, essentially a tentative art, owes everything to its history, without which it is a rough and destructive empiricism; for, untaught by registered failures, the despiser of learning copies, without knowing it, the mistakes of his pre-

peradventure remember my words better.' Incontinent, the clock struck eight,

'The very hour himself foretold should be his last.'

Shakspeare.

The hour at which he knew, and had prophesied, he should die, he

gave up the ghost, and thus departed this present life.

"Mr. Cavendish remarks, that 'whatsoever any man hath conceived in him, whilst he lived, or since his death, thus much I dare be bold to say, without displeasure to any person, or of affection, that, in my judgment, I never saw this realm in better obedience and quiet than it was in the time of his rule and authority, nor justice better administered with indifferency.'

"And, as I have quoted Shakspeare to his disparagement, let me add from the same, and after the poet's example, what he has

said to his credit.

'His overthrow heap'd happiness upon him,
For then, and not till then, he felt himself,
And found the blessedness of being little;
And, to add greater honours to his age
Than man could give him, he died fearing God.'"

Edward VI. died of pneumonia after measles.

"Mary, the elder daughter of King Henry VIII., inherited from Queen Catherine, her mother, a weak constitution, and was always of feeble and unpromising health. When she arrived at mature age, the peculiarities of her sex were irregular and deficient; for which were prescribed frequent bleedings and exercise on horse-After her marriage with Philip of Spain, she referred this irregularity to pregnancy; and died at last of dropsy. It appears in Sir Frederick Madden's introductory memoir to the privy purse of Queen Mary, that she was bled very frequently, and that fees were paid again, and again, and again to the surgeon who bled her; till at last she grew so pale, as to convey, even to unprofessional eyes, a conviction that she laboured under an internal organic disease; in which, probably, the better practice of modern days, by chalybeates and aloetic medicines, would not have availed her Majesty more than the repeated bleedings and horse exercise had done." (P. 13.)

Dr. Bates, in his "Elenchus Motuum Nuperorum in Angliâ," has given an account of the last sickness of Oliver Cromwell. Post-mortem examination showed that the chief disease was in the spleen, which was filled with matter like the lees of oil.

Charles II. died of apoplexy.

"It appears that the king had just risen from his bed, at eight in the morning, when he felt an unusual sensation in his head. Shortly after complaining of this he fell down speechless, and without the power of motion. A medical gentleman of the army happened to be waiting in the next room to assist his Majesty in making some experiments for the fixing of mercury, who most pro-

perly thought himself justified in taking away sixteen ounces of blood, even before he had summoned the King's physicians. When they arrived, they commended his decision, and followed up the first step by cupping his Majesty to eight or ten ounces more. They ordered, moreover, an antimonial emetic (but little of which could be got down), a powerful purgative, and clysters. These expedients producing little or no effect, a blister was applied to the King's head, and other remedies were prescribed to which we have recourse in modern practice. But all in vain. The King lingered four days, during which it is palpable, from the prescriptions, that not only no improvement took place, but everything proceeded from bad to worse, from hour to hour, until his Majesty expired, in the fifty-fourth year of his age.

"His brother and successor, the Duke of York, afterwards King James II., 'summa in regem pietate, et plusquam fraterno amore affectus,' as the narrative states, watched the symptoms most anxiously, and hardly ever left the sick room, 'ut omnibus constiterit maluisse ipsum charissimi Fratris consortio perfrui quam

sceptro.'

"Had there been safety in a multitude of counsellors, the King's life must have been preserved, for I perceive the signatures of not less than fourteen physicians to one of the prescriptions, amongst whom were Sir Charles Scarborough, Doctors Lower, Charlton, Millington, Wytherly, and others, with whose portraits you are familiar in the room below, and who have left you an ample inheritance of fame.

"Their materia medica seems to resemble much that in use at this time of day, save that we have improved upon the spiritus cranii humani, twenty-five drops of which were ordered in a cordial julep, 'ad refocillandas Regis vires,' (when his Majesty was sinking,) by substituting for this bad and disgusting sal volatile, a more effectual preparation of the stag's horn. This calls to my recollection an original prescription, which was shown me, in which a portion of the cranium humanum was ordered in a powder for Sir Nicholas Throckmorton, in the time of the protectorate. It was found on a file of prescriptions dug out of the ruins of a house in Duke-street, Westminster, said to have been inhabited by Oliver Cromwell's apothecary." (P. 18.)

There was effusion of lymph in the ventricles, and at the base of the brain; and an old adhesion of the lungs to the right pleura.

William III. died from the effects of a fall from his horse, which broke through an old adhesion of the lungs to the pleura, occasioning inflammation, suppuration, and death.

His consort, Mary, died of the smallpox: Burnet censures Dr. Radcliffe's treatment of her case, but, in our author's opinion, without reason.

Dryden died of gangrene of the foot, probably depending on ossification of the arteries.

As it would hardly be fair to take more from a short essay, we must unwillingly omit the other cases, (Swift; George I. II. and III.; and the Duke of Gloucester;) and give only the just and tolerant conclusion.

"I will now thank you, gentlemen, most respectfully for your attention, and only entreat you to read history,—not with that total disbelief of it which Sir Robert Walpole is said to have expressed, when a volume of history was offered him for his amusement, after his retirement from public life,—but with some mistrust and reserve, recollecting how difficult it is to develope the motives of human conduct; how easily the spirit of party insinuates itself into the historian's mind, and colours his narrative; and how almost impossible it is for an unprofessional writer to appreciate fully the effect of diseases of the body upon the minds and actions of men." (P. 40.)

A Dictionary of Practical Medicine. By James Copland, M.D. F.R.S. &c. Part III.—London, 1835. 8vo. pp. 320.

DR. COPLAND'S admirable work, of which the third part is now before us, is so condensed in style, and so excellent in execution, that analysis is impossible, and criticism very difficult. In such a case as this, therefore, we decline the functions of censor, content with the more agreeable office of indicator. The present part is fully equal to the preceding ones; and we agree with the whole world in thinking Dr. Copland's Dictionary not only superior to any existing one, but likely long to remain at the head of its class:

——maturos largimur honores, Nil oriturum aliàs, nil ortum tale fatentes.

This part contains forty-nine articles, from Dropsy of the Pericardium to Remittent Fever, including Dysentery, Epilepsy, Erysipelas, and Diseases of the Eye. We give a few extracts, rather in compliance with custom, than with the hope of giving our readers a notion of the work: the brick in the story could not have been a more unsatisfactory sample of the house. This is of the less importance, however, as, sooner or later, every one will get the book; and this is an additional reason for making but scanty quotations.

Practice of the German Physicians in Acute Hydrocephalus.

"The following is an abstract, made in my note book many years since, of the practice of the most able German physicians in this disease. In the nervous or typhoid variety, cold applications to the head, sinapisms to the arms and legs, and purgative clysters. If these fail, digitalis, with the decoction of flores arnicæ or infusion of serpentaria; blisters from the occiput to between the shoulders to be kept open, the inunction of mercury three or four times a day; and, if the vomiting persist, sinapisms on the epigastrium. Subsequently musk and ammonia, chiefly on account of the convulsions. In the inflammatory form, and in that consequent on the exanthemata, local bleedings, digitalis, calomel and jalap, and in the latter stages of these forms, the treatment directed for the nervous or typhoid variety." (P. 675, note.)

We can afford room for the conclusion only of our author's history of the following interesting operation.

Tapping in Chronic Hydrocephalus.

"309. B. Mr. Greatwood (Lancet, No. 299, p. 238,) records a case of a hydrocephalic child, æt. fifteen months, who, falling on a nail, punctured the head at the upper third of the lambdoidal suture. The wound continued to discharge fluid for several days, and it afterwards perfectly recovered from the disease. In the same work, for April and November, 1830, the operation of puncture is stated to have been successfully performed in St. Bartholomew's Hospital. Graefe (his Journ. for 1831, b. xv. p. 3,) punctured the head of an infant hydrocephalic from birth, in the fourth month, and repeated the operation about eleven times during six months. The fluid was allowed to escape slowly each time; the canula being removed, and the wound closed, as soon as the pulse became weak. After the last puncture, the sutures closed. child could walk and speak when a year old. At the age of two years and a half, it was shown to the Medico-Chirurgical Society of Berlin. Mr. Russel (Edin. Med. and Surg. Journ. July 1832, p. 43,) operated on a girl eight months old, hydrocephalic from birth, and whose head was twenty-three inches in circumference when he first punctured it. The operation was repeated four times, after intervals of about ten days; but the quantity of fluid withdrawn each time was small. After the last puncture, calomel was given so as to affect the mouth; when the hydrocephalic symptoms disappeared, and ossification of the sutures proceeded. The case is stated to have been cured. Dr. Conquest is reported, in a contemporary work, to have operated in nine cases, successfully in four of them. The greatest number of punctures in one case were five, and the intervals between them from two to six weeks. The largest total quantity of water removed was fifty-seven ounces, by five operations; and the largest quantity at one time, twenty The trocar was introduced through the coronal suture, below the anterior fontanelle, and the wound carefully closed after each evacuation. Pressure was made by means of strips of adhesive plaster." (P. 682.)

Pathological Effects of Calomel.

"A most important fact was determined by the experiments performed by Mr. Annesley (Sketches of Dis. of India, 2d ed., 8vo. p. 374), in order to ascertain the operation of calomel: and these experiments presented uniform results, viz. that, whilst the stomach and duodenum of dogs that had taken large doses of this preparation were much paler and less vascular than in ordinary circumstances, the colon and rectum, from the cæcum to the verge of the anus, were most acutely inflamed: thereby explaining the results of clinical observation; namely, that, although large doses of calomel calm those symptoms usually caused by increased vascular action, or inflammation of the mucous surface of the stomach and duodenum, they lower the vital energy of these important organs, and occasion tenesmus, griping pains in the course of the colon, mucous or bloody stools, hæmorrhoids; and, if persisted in, many more of the symptoms of dysentery, or even structural change of the colon and rectum. I am confident that dysentery becomes chronic; that an occasional indigestion lapses into a constant dyspepsia; and the habitual constipation often passes into strictures of the rectum, and hæmorrhoids into fistulæ; from the frequent exhibition of large doses of this medicine. Ingenuity cannot possibly devise a more successful method of converting a healthy person into a confirmed invalid, of destroying many of the comforts of existence, and of occasioning hypochondriasis and melancholy, than the practice of prescribing large doses of calomel on every trifling occasion, or when the bowels require gentle assistance; or because the patient erroneously supposes himself to be bilious, or is told so by those who should know better. The unfortunate word 'bilious' is the scapegoat of the ignorant." (P. 731, note, Art. Dysentery.)

Bleeding to be avoided during the Coma of Epilepsy.

"A gentleman, residing near Portman Square, had been under my care, in the spring of 1833, for articular rheumatism. He soon recovered, and went out of town. Towards the close of the year, whilst in Scotland, he had an epileptic attack; and was blooded in the arm, and cupped soon afterwards. This was the second seizure, the first having occurred two or three years before. He returned to town immediately after this second attack; and, when I saw him, there appeared no occasion for further vascular depletion: a course of alteratives and stomachic purgatives was therefore Three or four days afterwards, he had a third seizure, and was brought home in the soporose stage of the fit. I did not see him until about two hours afterwards; and then a physician, who had been called in whilst I was sent for, had him cupped largely! But, soon after the depletion, and as sensibility was returning, the paroxysm recurred. The obvious course in this case was, to have caused the patient to be removed to bed, and to have

stated that nothing further was requisite in that stage of the fit until the patient had partly slept off the exhaustion; when the physician in attendance would pursue that course which his knowledge of the antecedent disorders and state of the patient would warrant.

"Whilst this was passing through the press, a man of middle size, apparently about forty, consulted me; and stated that he had been seized with the first paroxysm of the disease immediately post coitum quinquies repetitum duabus cum puellis inter horas perpaucas; that he had been blooded to about a pint soon afterwards, and experienced a still more severe fit about a month after the first; that the third seizure occurred about a fortnight after the second, during which he fell down and cut his head, the cut part having bled a pint at least; that his usual medical attendant, upon arriving soon after the termination of this fit, bled him largely from the arm; but that, as soon as the vein was closed, the fit recurred; and that, during the struggles, the vein broke out, and the blood was allowed to flow until two or three pints were taken in addition to the quantities lost just before. The person who accompanied him to my house, on account of his weak state, and who witnessed the paroxysms, stated that this last was most severe; and that the fit which recurred during the depletion, and which was attempted to be put a stop to by continuing the abstraction of blood until a very unusual quantity was lost (about five pints in all), was remarkably prolonged and violent. The patient is now pale and weak, with a waxy appearance of the surface; completely exhausted, physically and mentally; and constantly dreading a recurrence of the paroxysms. This case furnishes a very remarkable instance, not only of the failure of large bloodletting in arresting or shortening the fits, but also of its influence in rendering them more frequent and violent, when injudiciously prescribed." (P. 799, note; Art. Epilepsy.)

The Pathology and Diagnosis of Diseases of the Chest; illustrated especially by a Rational Exposition of their Physical Signs. With New Researches on the Sounds of the Heart. By Charles J. B. Williams, M.D., F.R.S. &c. Third Edition, much enlarged.—London, 1835. 8vo. pp. 213.

This is a new edition of a good book, made excellent by additions and corrections; and will not only form a useful part of the library of the student, but may be consulted with great advantage by the experienced physician, not yet sufficiently versed in the use of the stethoscope. The additions are very considerable: "the sections on the ocular and manual examination of the Chest; on expectoration; on encephaloid disease, melanosis, &c.; on diseases of the bronchiat glands; and the whole of Part 111. on the auscultation of the heart, are new; and large additions have been made to the sections on bron-

chitis, peripneumony, pleurisy, pneumothorax, and phthisis."

(Pref. p. 9.)

The following extracts from the new matter may serve to show how well Dr. Williams has employed the two years which have intervened since the last edition.

" Ocular and Manual Examination of the Chest.

"Much useful information as to the state of the thoracic organs may often be obtained by mere inspection and manual palpation of the chest; and although the signs resulting from this method of examination are neither so numerous nor so precise as those of auscultation, they are yet very valuable, because they are easily obtained, and because they often give a general and decisive character to other more minute indications.

"In a healthy and well acting chest, the act of inspiration is performed equally by the elevation of the ribs and the descent of the diaphragm; and the eyes watching the naked chest, or the hands feeling it, will perceive its equal and uniform expansion by these means. If any disorder impede the free descent of the diaphragm, whether it be pain of this muscle or its coverings, or of some of the viscera below, or whether it be pressure on its under surface, as from abdominal dropsy, tumours, or pregnancy, an increased task will then devolve on the ribs and their muscles, and the respiration being performed principally by the heaving of the chest, is called thoracic. This character of respiration is obvious to the eye: and one hand applied lightly, but in close contact, on the chest, and the other on the abdomen, equally perceive it: it becomes then the next matter of inquiry, which of the above-mentioned causes is present. Again, in the converse case, which belongs more closely to our subject, pain or increased sensibility of the parietes of the chest, or of its more superficial contents, ossification of the cartilages of the ribs, and occasionally certain changes in the lungs themselves, which will be afterwards considered, make the respiration diaphragmatic, or abdominal, the ribs remaining comparatively immobile. The diseases of the chest which may render the respiration chiefly abdominal, are pleurodyne, inflammation of the costal and upper pulmonary pleura, and occasionally induration of the lung by hepatisation or tubercles. Of those which render the respiration chiefly thoracic, besides diaphragmatic pleurisy, spasmodic asthma may be reckoned, in which the diaphragm, overcome by the superior force of the bronchial muscles spasmodically contracted, is permanently drawn into the chest, causing a remarkable hollow at the scrobiculus cordis, whilst the respiration is carried on by the intercostal muscles, and others which assist them in supplemental respiratory efforts.

"The more useful indications, however, in the external examination of the chest, are those which arise from a want of correspondence, in form or in motion, between the two sides. Any disease which interferes with the respiratory act, and affecting chiefly one side, will produce an inequality obvious to sight and feeling. For this mode of examination, the patient should be placed with his chest exposed in a good light opposite to the observer, who attentively surveys the chest, and further corrects his estimate of its form and motions, by feeling with his two hands the simultaneous motions of corresponding parts on the two sides, during increased as well as ordinary acts of respiration. To determine the comparative size of the two sides of the chest, the more accurate method of measurement from the spinous process of a vertebra to the sternum may be sometimes employed. Care must be taken that the string or tape be passed over corresponding parts; and it must be held in recollection, that in healthy persons the right side is almost always slightly larger than the left.

"Now it is obvious, that any inequality or irregularity in the form or movement of the chest will imply some disease; and, with a little further attention, the same method of examination will give some general knowledge of its seat and character. Thus, if one side appears to be immobile, with a sharp pain or stitch, but without alteration of size, it may be suspected that a pleurodyne or a recent pleurisy is the disease, and prevents the respiratory movements by the pain which it would cause in the affected part. If to the immobility of the side is joined an unnatural fulness, perceptible to the eye and to mensuration, there is perhaps effusion into the pleura, as in advanced states of pleurisy, empyema, hydrothorax, and pneumothorax. If a contraction of the side is joined to the defect of movement, adhesions or the reabsorption of a pleuritic effusion of some standing, is the probable cause. If one side does not partake in the respiratory act, and yet there is neither pain nor alteration of size, it is likely that the corresponding lungs may be hepatised, or otherwise obstructed.

"The preceding signs are connected principally with the middle and lower parts of the chest. Irregularities in the movements and shape of the upper regions are perhaps more characteristic. Thus tubercular disease rarely exists to a considerable extent, without diminishing the motion of the upper ribs of the affected side; and adhering, as the diseased lung often is, to the walls of the chest, it not unfrequently causes an angularity and want of symmetry, which are very characteristic. Opposed to this is the effect of pulmonary emphysema, which gives a full and unnaturally rounded appearance to the upper parts of the chest, whilst, both by sight and tact, it can be perceived that the chest does not rise and fall to its natural capacity." (P. 12.)

" Diseases of the Bronchial Glands.

"It is very common to find the bronchial glands exhibiting traces of disease even in cases where no symptoms of it had been indicated during life. The presence of the black matter, like that in the lungs, can scarcely be called a disease, since scarcely any adult is entirely free from it. But besides this, the glands are sometimes enlarged, their unstained parts being of a reddish colour; and as they have been found in this state when the adjoining parts of the lungs have been inflamed, there is reason to believe the tumefaction to be caused by inflammation. Laennec says that he has met with abscess in them in a very few instances.

"They are frequently the seat of tuberculous deposit; and I have seen instances, both in children and in the adult, of its formation in them exclusively, no other part of the body shewing any trace of tubercles. When thus tuberculous, they sometimes attain the size of a pullet's egg, and by pressure on the trachea or bronchi, or on the blood-vessels, induce dyspnæa and obstructed circulation. Dr. Carswell considers this to be not uncommon in children; and he would ascribe to it the dyspnæa occurring in them, without signs of other disease, when the chest continues to be sonorous on percussion, and the respiration everywhere audible though weak. Tuberculous matter in the bronchial glands is liable to the softening, and to the drying and cretaceous conversion which we have noticed to be its course in the lungs. The softened matter may be evacuated through the bronchi, leaving a fistulous cavity; and M. Guersent describes this as not an uncommon case in children. Dr. Carswell notices an instance of a child, in which this softening and ulceration proved fatal, by opening a branch of the pulmonary

"The calcareous matter found in the bronchial glands, does not appear to be always the dry remains of tuberculous deposits; for I have seen calculous concretions in them which are obviously different from the gypsum-like matter of old tubercles, and without the enlargement which the scrofulous tubercle generally produces.

"Encephaloid disease may attack the bronchial glands, from which it sometimes extends to the tissue of the lung. A remarkable case of this kind lately occurred at St. George's Hospital. The disease constituted a tumour in the mediastinum, which involved and partially obstructed both the blood-vessels and trachea; and nearly the whole of the left lung was solidified by an infiltration of the same matter. The mixture of black matter in the lung, and the presence of two cavities, gave it a resemblance to tuberculous disease, from which it would scarcely have been distinguished but for the presence of the reddish white organized matter in the root of the lung, and which extended into, and was gradually lost in, the solid grey matter of the lobes. The symptoms in this case were partial ædema, and lividity of the face and neck, and other signs of obstructed circulation and respiration.

"The physical signs of considerable tumours of the bronchial glands, would be dulness on percussion in the upper portions of the interscapular regions, and on the spinous processes of the upper dorsal vertebræ. Signs of excavations there would be rendered doubtful by the bronchophony and, in thin subjects, pectoriloquy, naturally existing in these spots." (P. 157.)

LADY MOUNTCASHELL on the Physical Education, &c. 423

" Softening of the Heart is probably sometimes caused by inflammation, but in many cases it has been found where no signs of inflammation have existed in any form, and it is therefore rather to be regarded as a modification of nutrition, perhaps the result of a cachectic state of the fluids. In carditis, or inflammation of the muscular tissue manifesting itself during life, by increased action, and sometimes pain of the heart, dyspnæa, a very quick, contracted, and hard pulse, the heart has been found in a softened state after death, the ventricles being collapsed and flabby, and being easily lacerated when squeezed or pulled. In cases not preceded by inflammatory symptoms, a greater degree of softness has been observed in the muscular substance of the heart, which is often paler than usual, and sometimes presents a yellowish tint. considered that this softening rendered the sounds of the heart more obtuse than natural; and this, the result of his experience, we should be more ready to receive, as it accords well with the view lately given of the cause of the sounds; a soft flabby muscle being insusceptible of the degree of tension capable of producing There is, however, such a variety in the a loud clear sound. sounds of a healthy heart, that the mere obtuseness of sound would only give us a suspicion of the existence of softening in those who evince signs of peculiar weakness in the organ, sometimes with attacks of angina and palpitation, during which the sounds are often much clearer. Laennec thought that a partial softening was sometimes produced in the hours of imperfect circulation which precede a lingering death, and I have lately seen a case which was found after a death of this kind." (P. 191.)

It is but justice to add, that, independently of the insertion of fresh matter, the old has been carefully revised; the finishing touches of a zealous author are to be discovered in every part of the work.

A Grandmother's Advice to Young Mothers on the Physical Education of Children. By M. J., Countess Dowager Mountcashell. Revised and augmented by the Author. London, 1835. Small 8vo. pp. 383.

This is a hygienic treatise of very extraordinary merit, and is evidently the offspring of a clear head, long experience, and sound medical reading. The late Andrea Vaccà, of Pisa, encouraged the noble author in her undertaking, and however fastidious this eminent surgeon may have been, he had no reason to be ashamed of his pupil.

Those who have seen and sighed over the stupid manner in which new-born infants are commonly washed, will be de-

lighted with the following passage.

"The washing of a new-born infant ought not to give it pain; and in fact, if performed in a convenient manner, would rather be

likely to occasion agreeable than disagreeable sensations. best method I have ever seen is that employed at Vienna, where they have for this purpose a wooden vessel made in the form of a long oval tub, of dimensions proportioned to the use for which it is designed. It is filled with tepid water, (in which may be mixed a little brandy or soap if thought necessary,) and in this bath the infant is placed by the midwife, who supports it under the back of the head with one hand. After it has remained three or four minutes in the water, which should be in sufficient quantity to make it float, she rubs it tenderly all over with a soft sponge, and then dries it gently with a warm napkin. An attendant should be ready to cover the child the moment it is lifted out of the water, and care should be taken to put the napkin first over (rather than under) its body, as that will prevent it from feeling a painful sensation by the impression of the comparatively cold air. scarcely necessary to add that this first washing should take place in a warm room, with all doors and windows closed.

"Besides the wooden vessel above mentioned, there is also prepared a large square cushion, which is used in dressing the child; and this is laid on a table, which is extremely convenient for the person employed in this office. It is filled with chopped straw in such a manner as to be pliable to the weight of the infant, and may be pressed into any form that is commodious. On this the child is laid when taken out of the bath, a warm napkin having been previously spread over it; and, after being well dried in a position which gives no fatigue, the child is thus dressed without having its arms pulled about unnecessarily, or being forced into the unnatural posture of sitting. The clothes of the child are made to fasten behind, and so shaped as to cover the breast and arms; a necessary precaution in cold climates, and an advantage Indeed I have been convinced by repeated observation in various countries, that children who have their bosoms and arms covered for the first two years, are not subject to those severe coughs and inflammations of the lungs which are, during the time of teething, fatal to so many in the British Islands.

"Another thing in the dress of infants at Vienna (as well as in many other places on the Continent) deserves also to be imitated; which is, that not one pin is employed in their clothing, every article that requires to be fastened having strings; and the person who ties them turns the child on its side as it lies on the straw cushion, so that it suffers no inconvenience. Some English nurses may, perhaps, say that it is impossible to dress a child entirely without pins: but what is done in one place may be done in another, and I recommend nothing of which I have not witnessed

the advantage.

"As long as it is necessary to have the child swathed, this is done with peculiar ease by laying it on its back on the straw cushion, holding up the feet with one hand (or making an attendant do so) and rolling the bandage round it with the other. The only pressure that should be made on the body of an infant, is that which is required for some time after the division of the umbilical cord; and which is often a beneficial part of the clothing, after it has ceased to be the necessary bandage of a wound. The swathe should be made of soft linen doubled, without seam or hem, and should have two strings at one end, long enough to go once round the body and to tie. It should be rather more than an inch and a half in breadth and two or three yards in length, according to the size of the child. When this is applied by a judicious hand, it is in many cases advantageous, especially where there has been any griping or looseness, both on account of warmth and of gentle pressure on the bowels; and might in some instances be continued with good effect for three months, or even longer if the weather be cold: for no diminution in a child's clothing should ever take place except in a warm season." (P. 35.)

The learned doctors who have written of late against stays, will be glad that they have an ally in our author. An enthusiast might almost suppose that there was some chance of this absurdity disappearing before the year 2000, when it is attacked by one who belongs to the aristocracy of rank as well as of intellect, for those who will not listen to Soemmerring may be convinced by a Countess.

"But the worst of all pressures is what is frequently inflicted on the bodies of female children, by that most detrimental of fashions, the use of stays,—the origin of a thousand deformities and diseases, and the cause of many fatal accidents. Were it even true that an excessively small waist was a necessary part of beauty, and that great sacrifices ought to be made for the acquisition of it, we should first consider how far this mode of squeezing the stomach and bowels is likely to have the desired effect; or whether it is worth while, for the doubtful chance of obtaining this end, to run the risk of producing certain ugliness, by crookedness and bad health. I have very good reason for believing that this mode of acquiring a slender shape does not always succeed; and, on the contrary, I have known many instances of clumsy girls, whose forms were entirely left to nature, growing up with much smaller waists than others who had been subjected to the tortures of fashion.

"I well recollect in my youth to have heard certain individuals blamed, extremely, for their very injudicious and careless conduct towards their daughters, who were doomed, by many prophetic voices, 'to grow up as thick round the body as kitchen-maids;' and I have afterwards seen those very young women, who had been so pitied for the cruel neglect of their parents, with more slender waists, and (what were then called) finer shapes than any of their neighbours, who had enjoyed all the advantages of being squeezed and tormented from their infancy.

"Beauty is by no means to be neglected; but it cannot exist

without proportion; and if a girl be so formed as to have broad shoulders and broad hips, (as many handsome women are,) surely nothing is so calculated to destroy the symmetry of her shape as to pinch in her waist until it is as small as her arms. Besides, let it be remembered, that whatever hurts the health must produce ugliness in a greater or less degree; and all persons who know anything of medicine, can have but one opinion on the subject of tight lacing." (P. 317.)

We cannot bestow the same praise on the therapeutic part of the work, in which Lady Mountcashell endeavours to teach mothers to treat the diseases of their children. It is well written, but the thing cannot be done. This clever attempt at the impossible is defended in the following passage.

"To many persons it may appear, that in saying so much about the cure of diseases, the author transgresses the bounds she had prescribed to herself; but on examination it will be found that this is not the case. She would always recommend those whose circumstances enable them to procure the assistance of a really skilful physician, to profit by his experience even in trifling maladies; but as this book is designed for mothers in every rank of society, many of whom live at a distance from medical aid, and others only on extraordinary occasions can afford the expense attendant on having good advice, it is but just to point out to such persons the means of curing slight indispositions, and of retarding (perhaps removing) danger in severe maladies; to mark the period when the aid of a physician must, if possible, be obtained, and to prevent the incalculable evils which continually occur in consequence of following the advice of ignorant pretenders." (P. 85, Note.)

To this we would reply, that those who cannot get first-rate advice, must be content with second, or third, or fifth-rate; but an anxious mother, with all her notions of physic gathered from a small manual, and her own child for her first patient, could scarcely be estimated by the depreciatory phraseology in ordinary use. Her medical tact, if she ever had any, would be in such a state of homœopathic dilution, of extreme proximity to nothing, that, to express it, we must adopt the notation of Hahnemann, and call her an X, or $(1,000,000)^{10}$ th rate practitioner.

The other part of the work, however, containing the prophylactic regimen, is so singularly excellent, so remarkable for its brilliant good sense, female tact, and a certain elasticity of style, that we would suggest to the benevolent author that it should be separately printed at a very low price, that it

might obtain the circulation which it deserves.

The Jamaica Physical Journal. Edited by James Paul, Esq. Kingston, Saturday, September 6, 1834. 8vo. pp. 120.

This Number commences with a review of Hahnemann's Organon, extracted from the first Number of our Journal; this is followed by other quotations from English periodicals, &c.,

and at p. 69 we arrive at the original papers.

Dr. Miller, in an Essay read before the College of Physicians and Surgeons of Jamaica, has some remarks on the use of ipecacuanha in restraining hemorrhage. He has given it with great success in uterine hemorrhage, in the dose of two grains every hour, made into a pill with laudanum; three pills are usually sufficient. In other hemorrhages he prefers the acetate of lead.

He next mentions the Malacia, or Pica Africanorum. This is the disease of the Negroes which is supposed to arise from eating dirt, and closely resembles the malady described by Andral under the name of Anemie générale. (Anat. Path. tom. i. p. 80.) The palpitations of the heart and dyspnæa which attend this disease, and are called by the Negroes pain of stomach, are highly distressing, and sometimes threaten speedy dissolution.

"Recollecting some cases related by Dr. Darwin in his Zoonomia, in which he had adopted a practice recommended by Dr. Macbride of Dublin, of putting issues into the thighs in cases of Angina Pectoris, I thought it worth while to try whether relief could not be obtained from this remedy for these symptoms in cases of Anemia Africanorum. The first case in which I tried them was a young man who had had the complaint for a short time, and arising from causes I could not ascertain; pea issues were put into the middle of the inside of each thigh, and, as soon as the drain was properly established, great relief was experienced, and in five weeks the disease permanently disappeared. I have since employed them in many cases of this disease with very great advantage, having uniformly found these distressing symptoms to be much alleviated by them. A child two years of age, whom I scarcely expected to live sufficiently long for the establishment of an issue, derived the greatest benefit; the issues were kept up for about two months; he completely recovered, nor has he had any return, though the case occurred more than two years ago. I had several others who got well under this treatment alone, but of late I have combined them with the use of the rust of iron, and a shower-bath two or three times a week.

"Darwin expresses it as not very easy to explain the theory of the effect of issues in Angina Pectoris. I am equally at a loss to account for it in the cases before us, but as an empirical remedy, I have derived great assistance from them, and believe others may do the same. They have one inconvenience: Negroes do not like the trouble, and must be constantly watched, lest they allow the issues to dry up." (P. 70.)

Dr. Miller is of opinion that the resin and dried chips of guaiacum are almost inert, but that a decoction prepared from the wood when full of sap, is highly efficacious in venereal

distempers.

Dr. Robert Bruce narrates a case of laceration of the abdomen with protrusion of the intestines, the patient having run against one of the cattle drawing a "trash-cart." The author says that "almost all the intestines and part of the omentum had escaped through the wound, and lay by her side, covered with cane-trash, sand, cinders, &c." (P. 72.) This happened on the 7th of January, 1834. The following is the termination of the case.

"11th, seven A.M. Much relieved; had several free evacuations per anum. I now directed my attention to the opening in the colon, and found adhesion had taken place between the gut and the parieties of the abdomen; brought the edges of the wound (including the gut) together with two stitches, adhesive plaster and bandage. The healing process went on very kindly; she recovered rapidly from this time, and in ten days was sent home. I did not see her afterwards, and I regret to say she died about six weeks after her removal (as I am informed) from fever." (P. 72.)

After a case of scrofula cured with iodine by Dr. M'Dermott, we come to the Editor's account of an epidemic variola, which appeared at Kingston in 1831. He mentions a case in which

"Such was the solution of the solids, that the scapular extremity of each clavicle had separated from its attachment, and had worked its way through the flesh, about three inches from each shoulder, where they appeared from an inch and a half to two inches, naked and dead bones, denuded even of the periosteum. Both trochanters were exposed, and the knee-joints were in the same state; indeed no limb could be raised without fear of separating its attachments. The flesh was of a livid colour, discharging a thin sanies, having the appearance of animal food in the last stage of putrescency; yet this object retained life, I believe for some days after I saw him." (P. 78.)

Mr. Maxwell has contributed a paper on acute traumatic tetanus, and trismus nascentium. The following were the post-mortem appearances in three cases of traumatic tetanus.

Case 1. A Negro aged twenty-two.

"The hard constricted state of the abdominal muscles disappeared when he became cold. The viscera of the thorax and abdomen were sound. The wound of the scalp was pale and

flabby, neither the pericranium nor skull were injured. The substance of the brain was of a natural appearance, the right ventricle contained about a teaspoonful of serum; dura mater throughout its whole extent, but more especially towards the basis of the brain, exhibited a singularly beautiful and highly injected appearance, of a dark red colour, with here and there tortuous vessels unusually gorged with black blood. The cerebellum was minutely examined, but presented no deviation from the sound state; the nerves originating from the cerebrum, cerebellum, and medulla oblongata, were individually dissected, without any remarkable appearance being discovered. The cavity of the spine was opened from the back part, and the covering of the spinal marrow was found to be highly vascular, suffused, and turbid: the nervous mass, with the nerves, were raised and examined, but no morbid alteration was observed in this stage of the inspection—indeed the only unnatural appearances detected were in the involucra of the brain and spinal chord, which presented an intensely vascular looking anatomical preparation." (P. 82.)

CASE 11. A Negro aged twenty-eight.

"The dura mater turgid with blood; between this membrane and the pia mater there was a general serous effusion which extended over the surface of the brain, nothing particular seen in the cortical or medullary substance, and the brain was of its natural firmness. The ventricles were filled with greenish serum, and the basis of the brain exhibited appearances analogous to those upon the upper surface; the crura cerebri enveloped in a highly vascular covering. The cerebellum was inundated with serum, and on separating the medulla oblongata from the medulla spinalis, the same fluid issued from the spinal canal in profusion. The spinal canal was opened and its contents examined, but with the exception of the unusual vascularity of the sheath, and disposition of serum, nothing else particular was observed.

"The abdominal cavity was inspected, and all the viscera found to be sound." (P. 84.)

Case III. A stout healthy seaman.

"The body was opened six hours after death, by my assistant, Mr. Rapkey, and the following appearances noted. The skin had generally a purple appearance, like a stage in ecchymosis, but was not swollen. The contents of the abdomen were sound, with the exception of the liver, where a few tubercles were found; the thorax showed more disease; the pleura pulmonalis adhered to the pleura costalis; the lungs appeared turgid, and a few well defined tubercles were observed in their parenchyma. On removing the calvarium, the dura mater was particularly vascular, and the vessels felt like hard threads under the finger; about four ounces of black blood oozed from the longitudinal and lateral sinuses. On removing the dura mater, there was an appearance like a successful

injection of blue and scarlet, where the pia mater dipped among the convolutions of the brain, the medullary part of which was studded with minute bloody points; the ventricles were distended with bloody serum; the brain was highly congested, and heavier and firmer than natural. The cerebellum, medulla oblongata and spinal marrow, exhibited appearances similar to those observed in the brain." (P. 85.)

The trismus nascentium is common among negro infants, and was formerly still more so. Our author considers it a kind of traumatic tetanus, and attributes it to improper treatment of the navel, together with the administration of stimulating medicines, and a vitiated atmosphere in the lying-in room. The following passages will show what very bad management and a tropical climate can effect in conjunction.

"A few years ago, when African customs predominated, and when it was morally impossible to reason or endeavour to convince them of an impropriety, I have often seen a tumbler full of equal parts of strong rum and castor oil, standing by the bedside, and when I have asked for what purpose it was to be used, they uniformly replied, that it was to feed the baby with till the ninth day. During this period, the air was carefully excluded from the room; a fire was kindled, and the midwife inculcated the necessity of not allowing the navel to be dressed till it dropped spontaneously. Under such treatment was it to be wondered at, if miliary eruptions, febrile symptoms, and strong convulsions should occur?" (P. 86.)

"A lady connected with the management of a plantation, had lost twenty five infants in a few years from locked jaw, and as the women were delivered in one of the airy apartments of the dwelling-house, under her immediate superintendance, she was at a loss to know the cause of her misfortunes. Her treatment was to give the child a dose of oil shortly after birth, to dress the navel with bark, and each day to add a fresh portion to absorb the acrid matter without bathing till it dropped.

"I advised her to change her method of dressing the funis, to bathe it daily with milk and warm water, (or twice if it was large,) and apply a pledget of cerate or spermaceti ointment, and from adopting this simple plan of treatment she lately informed me that for several years she has never lost a child. Enough has already been said of the prevention of the disease, and never having seen a case cured, I shall now proceed to describe the appearances

found on dissection.

"A woman on Fort Stewart Estate was delivered, in very easy labour, of a mulatto child. On the morning of the seventh day, the infant commenced crying, and shortly afterwards refused to take the breast, the fists now became clenched with partial spasms, which soon terminated in general tetanic convulsions and locked jaw, and the child expired next morning.

"Dissection four hours after death. The navel was unusually large, and did not drop till the commencement of the fits; the boy was well formed and born to the full time. On viewing the body externally, a blush of purple-red was observed suffused over several parts of the abdomen and back. The pericranium presented an injected appearance, and on slitting it open a coagulum of blood was found effused immediately over the junction of the parietal with the occipital bones. The dura mater was exceedingly vascular, pia mater turgid, and the corpora striata gorged with black blood; no lymph was found in the ventricles, but their lining was beautifully injected, and the right ventricle contained a small quantity of blood; tentorium and bases of the brain highly vascular. The cerebellum exhibited similar appearances to that of the brain.

"The spine was opened and carefully examined, involucre externally covered with blood, and internally with a slight effusion of blood and lymph; the appearances generally were highly vascular, but nothing further was observed throughout inspection than a

preternatural injected appearance.

"A woman on Gray's Inn Estate brought a fine boy on Monday, after an easy labour; everything went on well till Friday, the fifth day, when about twelve, P.M., it appeared uneasy and gaped, shortly afterwards refused the breast, became restless, and was covered with profuse perspiration. A few hours later the jaw was found to be locked, and towards morning it was seized with convulsions.

"The whole of Saturday the fits recurred at intervals of two to three minutes, and were of a modified kind, but on Sunday they assumed an extremely violent form, and the head was now and then thrown back with great force, accompanied with dreadful spasms of the abdominal muscles, which became constricted and unyielding during the paroxysm; the breathing was hurried, and the arms were drawn upwards with clenched hands. The body was thrown into a general tremor, with pitiful moaning, and foaming at the mouth previous to the spasms. Died during the night.

"Dissection a few hours after death. Brain.—The dura mater was of a natural appearance, and presented no signs of inordinate vascular action. Pia-mater covered with turgid tortuous vessels, and had a minutely injected appearance. The sinus longitudinalis was gorged in the back part with coagulated blood. On making a horizontal incision through the middle of the cerebral substance, it was minutely studded with vessels which poured out drops of

blood, the left ventricle was half filled with serum.

"The falciform process, tentorium, septum of the ventricles, and inferior dura mater, evinced signs of intense vascular action having existed, had a colour between vermilion and purple, and the depressions on the base of the brain were covered with layers of coagulable lymph. Cutting through the tuber, blood exuded from small points.

- "Spine.—Dura mater morbidly suffused throughout its whole extent. The involucra of the lateral nerves of the same appearance.
- "After inspecting the spinal chord very minutely in situ, it was carefully removed, and the nerves individually examined, and the only diseased changes observed during the whole dissection, were in the involucra of the brain and spinal chord, appearances which I have repeatedly noticed in many diseases not referable to spasmodic action.
- "Abdomen.—The navel was inflamed and tumified, and an inflammatory blush extended a small way around it; the intestines were natural, but inflated; gall-bladder turgid, with dark green bile. Thorax healthy." (P. 87.)

There are some interesting papers in this Journal, on the best method of remedying that medical malady called Atrophy of the Purse, which appears to be effected in Jamaica by the external administration of unoxidized gold in very large doses. A couple of extracts will show that he who steals the purse of a Kingston doctor, does not steal trash.

"Kingston; August 1, 1834.

"We, the Undersigned, are of opinion that the time has arrived when the present mode of charging for our professional services should be abolished, as unworthy of an enlightened age, and a respectable profession.

"We are gratified also to know, that a similar opinion prevails

in the Community.

"We do, therefore, now intend to relinquish the custom of charging for professional attendance by the Medicines that are prescribed; and we hereby make public this our intention, and also the scale of fees or charges by which we are for the future to be governed.

"Scale of Fees. The Medicines requisite in every case, will be

supplied as heretofore, the charge being included in the fees.

"For the first visit daily, or when one *only* is required, the charge will be 20s., and for every succeeding visit on the same day, 10s. Not more than four visits to be charged on one day.

" For Domestics and Apprentices, where no agreement is made,

two thirds of the above.

- "For every night call, viz. betwixt the hours of nine, P.M., and six, A.M., 55s.
- "For attendance at Pens (if above one mile from the Church), 13s. 4d. extra will be charged, and for every succeeding mile 13s. 4d.
- "For attendance on board of Vessels, where no agreement is made, 26s. 8d. for each visit.

"Operations in Surgery, Midwifery, &c. &c., extra.

"When more than one, belonging to the same family, are ill in the same house, one half of the above fees will be charged for every additional patient. "This arrangement will not interfere with any agreement now in existence. "Spalding & Ferguson,

"Chamberlain & Garcia,

"JAMES PAUL,

"GEO. K. PRINCE." (P. 106.)

Again, Mr. Downer, a country practitioner, in a letter to the Editor, offers his mite of information touching fees, to the Kingston Medical Committee, then and there investigating this most important subject, with the intention of establishing a tariff. He says,

"For attending an Express call, or paying a visit, my duty demanded, within or not exceeding a distance of five miles from my residence, my charge has been 11. 12s. 6d.

"Ditto ditto ditto, beyond five miles, and not exceeding a dis-

tance of ten miles from my residence, 31. 5s.

- "For all night expresses, whether near to, or distant from my residence, my charge has never exceeded 51. 6s. 8d.; and I may add, that I have attended many such even in dark nights, and over dangerous roads, to places distant from my house, from seven to ten miles.
- "For the performance of all minor operations, such as venesection, extracting teeth, insertion of a seton, my charge has been extra, 11. 12s. 6d.

" For arteriotomy, cupping, tapping, &c. &c., 3l. 5s.

- "For the reduction of dislocations or fractures, amputations, dissections, common cases of midwifery, &c. &c., 51. 6s. 8d.
- "For prescribing for a patient attending at my house for advice, 16s. 3d.
- "For all operations performed under the same circumstances, one half of the respective already stated charges.
- "For remaining at a patient's house all day in close attendance, at the request of the patient, my charge has been, 2l. 13s. 4d.

" For ditto ditto all night, ditto ditto, 51. 6s. 8d.

"Medicines are not usually furnished by practitioners in the country, but whenever I have been requested to do so from my own little dispensary, as a matter of accommodation to my patients, my charge for them has not exceeded such as would, under similar circumstances, have been made by the druggists of Kingston." (P. 111.)

Adam Smith remarks, that in spite of all that has been said about the roaming disposition of man, he is in truth the most difficult to transport of any kind of luggage, and a case in point may be built upon these colossal fees; for it would seem that so many prefer half-a-crown in Cornwall or Cumberland to a moidore in Kingston, that fees can remain on a very different level in these several spots.

The Jamaica Physical Journal is creditable to Mr. Paul,

and we trust that it is prospering.

The Sphygmometer, &c. Being a Memoir presented to the Institute of France, by Dr. Julius Hérisson; with an Improvement of the Instrument, and Prefatory Remarks, by the Translator, Dr. E. S. Blundell.—London, 1835. 8vo. pp. xvi. and 46.

THE Sphygmometer, or pulse-measurer, is an instrument intended to measure the force of the pulse: its construction and use are described by Dr. Hérisson in the following passage.

"The instrument to which I have given the name of Sphygmometer, consists of a glass tube, three inches and a quarter in length, and two twelfths of an inch in diameter, graduated in front, and having a slip of coloured paper placed at the back with the graduated figures marked on it; the end of this glass tube is inserted into a steel stem, one inch and a quarter long, which is terminated at its base, by a hemi-spheroidal steel cup, three quarters of an inch in diameter, and two inches and one eighth in circumference, similar in form to an inverted tea cup, which is closed with a piece of gold-beater's skin stretched over its mouth, and confined by a rim in the same manner as parchment is secured on the head of a drum. All communication between the hemi-spheroidal cup, and the capillary duct of the stem and glass tube, is intercepted at will by a small stop-cock.

"There is in this hemi-spheroidal reservoir a certain quantity of mercury, which, whenever the instrument is properly applied in the course of an artery, receives and represents its action in the transparent tube. The same instrument on a larger scale serves to explore the heart. You will observe that the capillary duct, the hemi-spheroidal cup, and the quantity of mercury being the same in all Sphygmometers, they all possess the same power, and afford

an identical measure of the pulse.

"When the pulse of an individual is to be examined, he may be seated or reclining on a couch; if he be seated, the physician places himself before the arm, the artery of which he is going to examine, and steadies this arm upon his left hand, or on his thigh, or on the arm of a chair; he holds the instrument by its base between the thumb and the index (fore) finger of his right hand, and applies it over the course of the radial artery in such a manner, that the artery shall correspond, as exactly as possible, to the centre of the reservoir. By pressing the artery (in the way above alluded to) with the right hand, the physician endeavours to discover the maximum of its impulse; and having ascertained this, he presses with the end of his thumb and index finger, upon the lateral parts of the artery, whose action is then transmitted to the column of mercury, which thus appears a mere continuation of the artery." (P. 3.)

The following table will show the indications afforded by the sphygmometer, in a number of cases of diseased heart.

Organic Lesions.	Character of the Pulse, and Sphygmometric Signs.	Necroscopic Examination.	Observations.
and auriculo-pulmona-	equal, intermittent, and at times impercep- tible. The column of mercury does not de- scend to the point from whence it started, or	ventricle in a more or less forward state. A little hypertrophy was observed in the right ventricle of four indi- viduals.	furnished only a slight bruisement. In six, the bruit cataire was dis- tinctly marked; in the other eight, there was
left side of the heart, and ventriculo-aortic	irregular, intermittent, unequal, but much more so than in the contractions of the ori- fices on the right side.	heart was not affected with hypertrophy, but merely dilated. In the other fifteen there was a beginning of hyper- trophy of the left au- ricle and ventricle.	ly feeble: the patients died of hydrothorax, in a state of general
Hypertrophy of the heart, without any contraction of the ori-fices.—18 cases.	unequal in its contrac- tions. It presents this anomaly, that the co- lumn of mercury, after having ascended a certain number of de- grees, (we will say	eighteen individuals, in whom I had observed the stated Sphygmometric sign, showed a concentric or excentric hypertrophy of the left ventricle, without any contraction of the orifices.	In those patients who laboured under a concentric hypertrophy, the pulse had not the same development as in excentric hypertrophy, but it presented the same character of inequality in its contractions. The signs derived from auscultation occurred in eight cases; in all the others they were so feebly marked, that it would have been impossible to recognize an advanced lesion of the heart by those signs."

At page 37 we arrive at the extract of a report made to the Academy of Sciences, relative to the Sphygmometer of Dr.

Hérisson, by Messrs. Magendie and Serres. The report was unfavourable, and Dr. Hérisson has consequently thought fit to omit all the marrow, and give only a few skinny sentences. On this Dr. E. S. Blundell observes:

"Since translating the above, I have observed in the Athenæum of December 20th, 1834, p. 922, a notice of the report of Messrs. Majendie and Serres on the Sphygmometer, in which it is stated that these gentlemen gave it as their opinion, that its results are not more precise than those of the ordinary mode of feeling the pulse, since, 'having caused two persons, both equally skilled in the use of the Sphygmometer, to apply it successively to the radial artery of the same individual, and to write down separately the indications given by the instrument, the results obtained differed materially. I am entirely ignorant why Dr. Herisson has not given this objection in his abstract of the report, but, however this may be, it will be seen from the introductory page (xiii.) that a similar objection has already occurred to myself, and that I have, as I conceive, effectually obviated it by the improvement which I have made in Dr. Hérisson's instrument." (P. 40.)

Now, though we have not been so fortunate as to fall in with the report itself, yet we have been more lucky than our translator, as we have found a very long quotation from it in the American Journal of the Medical Sciences for February, 1835; and we shall transcribe the whole, as affording our readers a better means of arriving at Magendie's opinion than the garbled extracts of Dr. Hérisson; extracts which remind one rather of the disingenuous arts of a puffing advertiser, than the candour of a scientific physician.

"MM. Magendie and Serres, in their report to the Academy of Sciences, observe, 'If this contrivance were really competent to set before the eye the principal phenomena of the arterial circulation; if it could supply the means of measuring, and of course of expressing precisely, by signs similar to those by which variations of temperature, for example, are denoted; then would the sphygmometer, as it is called, prove an important acquisition in medicine; for even the most practised physician, no matter how delicate his sense of touch may be, is far from possessing, in his investigations by the pulse, a degree of certainty like that which results from the use of the thermometer. But it requires at least as much practice to learn the proper use of this instrument as it does to become acquainted with the ordinary indications of the pulse: nor are the results in any degree more exact. We have taken two persons, both familiar with the sphygmometer, and causing each successively to apply it to the radial artery of one and the same individual; we have requested them to write down separately what they ascertained by the instrument: the results, as stated by the parties, have been materially different, (sensiblement divergents.)

"The inventors of the sphygmometer, like most other inventors, promise and predict great things, as about to spring from their contrivance: they state, on the faith of facts which your reporters have not been able to verify, that the indications afforded by this instrument will furnish certain signs by which medical men may detect the presence of several maladies, whose diagnosis is at present obscure. While we are ready to admit that the sphygmometer is an ingenious thing, and not unworthy of trial in the hands of physicians, we can by no means partake of the sanguine hope of the authors: we moreover think that, if MM. Hérisson and P. Garnier intend to reach the object at which they aim, they must, by some modification in the apparatus, render its use more simple, and free from the necessity of conjectural approximations.

"In conclusion, the reporters propose that the thanks of the Academy be given to MM. Hérisson and Garnier, for their communication; and that those gentlemen be requested to simplify those instruments, if possible, so that the fidelity of its indications may no longer depend, as at present it does, on the cleverness and

nice precautions of the observer.' Adopted."

We think that Dr. E. S. Blundell has been rather too hasty in publishing this translation: it would have been better to wait a few months, until the instrument had been proved in the hands of British physicians. This delay would also have afforded him time to procure an engraving representing his new apparatus; which he has not done, because, as he tells us, "considerable delay and expense would necessarily be incurred, greatly beyond the limits of the work." (P. 44.)

A Series of Twenty Plates, illustrating the Causes of Displacement in the various Fractures of the Extremities. By G. W. Hind, M.R.C.s., formerly House-Surgeon to the Middlesex Hospital; late Curator to the Museum of Anatomy in the University of London.—London, 1835. Folio, pp. 48.

A SCIENTIFIC book may excel in two ways: it may announce original investigations,—and this is the first and highest species of merit: the second, and humbler, path of excellence consists in the more lucid and intelligible representation of the discoveries of others. The present work pretends only to belong to the second class, but deserves to rank high in it, for the beauty and clearness of the plates, and the skill that has been shewn by the author in the selection of his subjects. They comprehend fractures of the clavicle, the coracoid and acromion processes, and neck of the scapula; of the humerus at its neck, above and below the insertion of the deltoid, and above the condyles; of the coronoid and olecranon processes and shaft of the ulna; of the neck and shaft of the radius,

with fractures of both radius and ulna in the middle and at the lower extremities; of the fingers; of the femur, at its trochanter major, at its neck, below the trochanter minor, at the shaft, and above the condyles; of the patella; of the tibia and fibula, with Pott's fracture of the one, and of the malleolus internus of the other. Each of these subjects is treated, first with reference to its causes, then the appearances it presents, and afterwards the causes of the displacement, concluding with a summary of the treatment to be pursued.

We can give our readers no idea of the faithfulness and remarkable beauty of the representations; but the following extract will show the author's explanatory powers, and his

accurate knowledge of his subject.

Fracture of the Neck of the Radius.

"Causes of Fracture. This fracture is of very rare occurrence, and has been known to have taken place from the immediate application of violence to the part by means of machinery, the arm being at the same time fixed by means of the hand grasping a bar: in this situation the radius is prominent on the outer part of the arm, and is there exposed in the greatest degree to injury applied from without.

"Appearances. In the fracture of the neck of this bone, much difficulty will be found in detecting its immediate situation. The position of the arm at once indicates fracture of the radius; for it is invariably the case, in fracture of this bone, that the forearm is in a state of pronation and retains this position. The motions of the forearm, viz. that of pronation and supination, are entirely destroyed, but the extent of pronation is not carried beyond what is natural; (as is the case in all fractures of the radius, this only excepted:) little deformity takes place in fracture at this situation, from the circumstance of the parts being so thickly clothed and surrounded with muscles; the only deviation that is observed is a slight fulness on the anterior and upper part of the forearm, attended with inability to rotate it.

"Causes of Displacement. The upper portion of the bone will be found drawn slightly outwards and downwards, but not to any considerable extent. It will be remembered, that the radius above the fracture, or even perhaps at the immediate situation of the fracture, is surrounded by the annular ligament, which prevents its displacement beyond a certain limit, unless laceration has taken place. The action of the supinator radii brevis is the sole cause of the displacement of this portion of the bone: it arises from the outer condyle of the humerus, and is inserted into the anterior part of the head and upper extremity of the radius; its action is to rotate the radius outwards; the few fibres attached above the fracture roll the head of the bone outwards, and likewise give the broken surface the same direction. The lower portion is drawn

forwards, upwards, and inwards. The biceps muscle, which is inserted into the tubercle of the radius, and consequently into the upper extremity of the lower portion, is, in the natural state of the parts, a flexor of the forearm through the medium of the radius: independently of this action, it likewise, under certain circumstances, becomes a supinator: the latter of these actions, when fracture has taken place at this point, is entirely lost, in consequence of the separation of the shaft from the upper fixed point upon which it moves; the lower portion of the bone is then drawn forwards and slightly upwards by the action of the biceps, producing the fulness on the anterior part. But it must be remembered, that the oblique ligament of the radius is now on the stretch, as well as the fibres of the supinator radii brevis, which are in action: these counteract in some degree the effect of the biceps muscle. It will likewise be observed that the lower portion is drawn inwards: this displacement depends upon the action of the pronator teres, which arises from the inner condyle of the humerus, and is inserted into the middle and outer part of the radius: its action is to draw the radius over the ulna, (to pronate the arm,) and it is consequently the cause of the displacement; for the bone, having now no fixed point above upon which it can move, is made by its contraction to take the direction inwards. These facts account at once for the difficulty which exists in distinguishing the crepitus, for the broken surfaces look in opposite directions; the upper being directed downwards and outwards, while the lower is directed inwards and upwards.

"Treatment. In order to distinguish the crepitus, the upper part of the forearm should be grasped by the hand; the thumb pressing at the upper and outer part below the joint, and pushing inwards the head of the radius, while the fingers at the same time draw the lower portion outwards: the arm being new rotated, the crepitus is discovered.

"The treatment in this fracture consists in flexing the fore-arm, and placing it in a state between pronation and supination, in which situation the lower portion of the bone is held in a state of perfect rest; for in this position the biceps, supinator brevis, and pronator teres, are thrown into a state of relaxation, together with the mass of flexor and extensor muscles. A roller should be applied from the hand to the elbow; previously to which a soft compress should be placed external to the head of the radius, and the bandage passed firmly around, securing it in its situation; by means of which the head of the bone is forced inwards and retained in its natural situation. A broad splint applied both to the palmar and dorsal surfaces of the fore-arm retain the bones in their natural situations." (P. 19.)

A Therapeutic Arrangement and Syllabus of Materia Medica. By James Johnstone, M.D., Fellow of the College of Physicians, and Physician to the General Hospital, Birmingham.— London, 1835. Small 8vo. pp. 84.

This lucid and succinct manual is intended more particularly for the students at the Birmingham School of Medicine, but may prove useful to others; and may even be consulted with advantage by some of the lecturers at the new schools now springing up in all directions. The following is Dr. Johnstone's general arrangement of medicinal substances:

"CLASS 1. Medicines which act upon the alimentary canal.

"CLASS 2. Medicines which act upon the glandular system, and upon the secretory and excretory vessels.

"CLASS 3. Medicines which act upon the heart and arteries.

"CLASS 4. Medicines which act upon the brain and nervous system.

"CLASS 5. Medicines which act upon the muscular fibre.

"CLASS 6. Medicines which act upon the skin and external parts, by application to the surface of the body." (P. 3.)

The following are his arterial stimulants:

"Cantharis. Mastiche

Abietis resina. Mentha piperita.

Anisum.' Mezereum.
Acorus calamus. Myristica.
Armoracia. Olibanum.
Balsamum Peruvianum. Pimenta.
Carui semina. Pix.

Caryophylli. Pyrethrum.
Resina flava. Sabina.
Balsamum Tolutanum. Serpentaria.
Benzoinum. Styrax.

Cajeputi oleum. Styrax. Sinapis.

Canella. Terebinthinæ oleum.

Cardamomum. Zingiber.

Capsicum. Æther sulphuricus.

Rosmarinus. Vinum.
Cinnamomum. Alcohol.
Copaiba. Chlorinum.

Coriandrum. Chloruretum calcis. Cubeba. Chloruretum sodæ.

Cuminum. Ferrum.
Elemi. Petroleum.
Fæniculum. Piper longum.
Guaiacum. Piper nigrum."

Lavandula. (P. 9.)

The nervous stimulants are these:

"Ammonia.
Allium porrum.
Allium sativum.
Anethum.
Assafætida.
Galbanum.
Nux vomica.

Strychnia.
Opoponax.
Secale cornutum.
Valeriana.
Toxicodendron.
Æther sulphuricus.

Sagapenum." (P. 11.)

In the second part of the work, the medicines "derived from the animal and vegetable kingdoms" are respectively arranged, according to the systems of Cuvier and Jussieu, and the minerals are placed in alphabetical order.

The work concludes with a posological table, containing about four hundred articles. The printer has done his duty as well as the author, and the result has been a very remarkable accuracy, both in names and doses.

Illustrations of the Botany, and other Branches of Natural History, of the Himalayan Mountains, and of the Flora of Cashmere. By J. Forbes Royle, Esq., f.l.s., &c. Parts V. and VI.—London, 1835. Folio.

This truly splendid and admirable work acquires strength in its progress, like the fame that it will ensure its author. Nos. V. and VI. are worthy successors of No. IV., of which we gave a notice in our Review for January last. The first three Numbers we have not seen, but doubt not, judging from those before us, that they are meet partakers of our approbation. Ως αιει τον ὁμοιον αγει θεος ὡς τον ὁμοιον.

These two Numbers contain figures of thirty-eight species of plants, of which many are exceedingly beautiful: moreover, it is to us one of the pleasing features of this work, that it treats of nature as nature is found, and does not, as is so common, destroy the interest of her works by isolation. Botanists are often blind to every thing but plants; geologists frequently disregard the surface, and can only see "five fathom deep;" and entomologists as commonly neglect both soil and vegetation, and concentrate their observations on a fly. Mr. Royle's work, it is true, is chiefly botanical, but the references made to other sciences, and the contributions levied in collateral districts are both numerous and valuable.

Of the plants now figured, several species of Saxifrage, especially S. ciliata, have attracted our attention. Parnassia nubicola is also very pretty, and Dolomiæa macrocephala and Eremostachys superba handsome. Indeed, we might enumerate the whole, but must content ourselves with stating

our belief that this work will form a very acceptable and im-

portant addition to our previously acquired stores.

We subjoin an extract, as a specimen of the interesting matter which is interwoven with the more dry technical details.

"The grape-vine being a plant of so much value and importance, its distribution is an interesting subject of inquiry, though there is little prospect of its becoming in India of greater value than as affording an agreeable fruit; though this is of sufficient importance to render highly desirable the introduction and trial of different and superior kinds from Europe. The native country of the vine seems now to be better ascertained than that of many other as extensively cultivated plants. Bieberstein, in his Flora Tauro-Caucasica (1, p. 174,) states, 'Nusquam non præter alpestria, per omnem de qua sermonem facimus regionem sponte in sylvis atque dumetis nascitur, et altissimas quandoque arbores ascendens, totas quantas occupat.' The author of the 'Mukhzunool-udwieh,' who was an inhabitant of the district, describes the vine, as found both wild and in gardens at Tinkaboon, in Deilim, about lat. 37°, on the southern shores of the Caspian, and that it is there called dewaz. Humboldt, also, in his 'Geographie des Plantes,' p. 26, mentions that the vine 'grows wild on the coasts of the Caspian Sea, in Armenia, and in Caramania. The species of Vitis, which are found wild in North America, and which gave the name of Winenland to the first part of the New Continent which Europeans discovered, are very different from our Vitis vinifera.' These, as we learn from Pursh, are Vitis labrusca, called fox-grape; V. æstivalis, summer-grape; and V. cordifolia, winter-grape. From the sacred writings we know that the grape was cultivated in Asia in the earliest periods. M. Bové, the latest scientific traveller, informs us (Ann. des Sc. Nat. 1834, p. 172,) that it is still cultivated, and a good wine made in the vicinity of Jerusalem; but that in Egypt he found wine made only at Medinet-el-Fayoum (l. c. p. 76) which is in lat. 22° 20'. 'From Asia,' Humboldt continues, 'it passed into Greece, and thence into Sicily. The Phocæans carried it into the south of France, the Romans planted it on the banks of the Rhine; and we have it now extending to 51°, or even 52°, in England, where it ripens well, as in the present fine season, in the open air; and wine is made in a few places in Devonshire. Southward the vine extends as far as 120 of northern latitude; as we learn from Dr. Ainslie (Ind. Mat. Med. 1, p. 156,) that 'the French are particularly successful in cultivating the grape at Pondicherry, notwithstanding the great heat of the Carnatic.' The illustrious Humboldt, in his Proleg. de distrib. Geograph. Plant. p. 159, where, from the examination of a multitude of facts, he has deduced the requisites for the successful cultivation of many plants, has observed, that 'the vine in Europe yields a generous and excellent wine between the latitudes of 36° and 48°, where the mean annual

temperature is from 62° to 50°, or even 47°.5, provided that of winter is not below 38°, nor that of summer below 66° or 68°. These conditions are 'fulfilled on the sea-coast as high as lat. 47°, in the interior as high as lat. 50°, and in North America only as high as lat. 40°. The vine may therefore be cultivated for wine in a belt of from 12° to 15° of latitude in breadth on both sides of the Line; though to a much greater extent, if required, for its fruit only: but for both purposes, in a narrower space in the New than in the Old World. Further north than 48° of latitude, grapes do not generally secrete sufficient saccharine matter to undergo a proper vinous fermentation, and further south than 35° (or 32° in an insular situation like Madeira) though they are both sweet and high-flavoured, the temperature is so great that the juice passes rapidly into the acetous fermentation; and therefore the grapes of the most southern parts of Europe are more frequently dried as raisins than converted into wine. The climate of India is such as to exclude it from benefiting either by preserving the grape, or converting it into wine; though in the north-western provinces, the vines thrive well, and bear abundantly. They flower in February, and ripen the fruit (which is well, though perhaps not so delicately flavoured as in more temperate climates) about the middle of June. or about the time the vine is said to flower in Caucasus: at this time the mean temperature being about 90°, is evidently much too great to allow of a slow and gradual vinous fermentation; while the accession of the rainy season immediately afterwards produces so great a degree of moisture, as to render it impossible to dry the grapes as raisins, unless this could be effected in ovens, after being plunged in boiling water, as is done in some parts of Europe. It might, perhaps, be practicable even to make wine by growing the grapes at the foot of the mountains, where free from jungles, as in the country beyond the Jumna, and conveying them to a moderate temperature on the mountain side. A brewery has been established in a situation where the mean temperature in the houses hardly ever varied from 60° in the warm weather, and the distance was so inconsiderable, that it was thought preferable to bring the barley from the plains, rather than use that which was grown on the spot. The Deyra Doon would be a particularly favourable situation; but at present there is too much uncleared jungle, and the climate too moist, to ripen the grape properly in the short season, from the middle of March to the middle of June; the greatest pains were taken in their cultivation, but without success, by the Hon. Mr. Shore while resident there.

"But it is observed, that when the warmth of a low latitude is compensated for by elevation, or a barrier is opposed to the inundating influence of the rainy season, grapes are ripened as fruit, dried as raisins, and converted into wine. Thus, in Kunawur, between N. lat. 31° and 32°, or nearly that of Madeira, where elevation produces the same moderation of temperature, that is, in the

latter, the consequence of its insular situation, we have luxuriant vineyards between 9,000 and 10,000 feet of elevation, with grapes of delicious flavour, which the moderation of temperature in September allows of being converted into wine, and the dryness (v. p. 34) to be preserved as raisins. Two degrees further north, or in the valley of Cashmere, at an elevation of 5,500 feet, we have grapes both excellent and plentiful, as we learn from both Mr. Foster and Mr. Moorcroft. The latter says, that 'many thousands of acres skirting the foot of the hills, are covered with apple and pear trees in full bearing, but without owners.' (Jour. of Geog. Society, 1, p. 241 and 253.) My plant collectors expressed their admiration, by describing the fruit trees as forming a perfect jungle in Cashmere. The moderation of temperature, with the existence of moisture, has been mentioned at p. 27, as accounting for the magnitude attained by may species of European genera. also explain the great size of the vines, which Mr. Moorcroft informs us, 'scales the summit of the poplar,' as well as for the want of a fine flavour, observed in the grapes brought to India, packed in layers of cotton. At Khoten, also, the vine is described by Mr. Moorcroft, as being very productive. The different kinds of raisins called monukka, kismish, and bedana, are brought chiefly from At Cabool, nearly in the same latitude, but more to the eastward than Cashmere, and elevated 6,000 feet, the grapes are described by Lieut. Burnes to be so plentiful, as to be given for three months to cattle. They are also abundant at Bokhara, and in both places are converted into wine, and dried as raisins. Astrakhan, in 46° of N. latitude, seems to be the most northern point in Asia where the grape thrives, and there the vineyards are described as being numerous. Every traveller mentions the grapes and wine of Persia. Dr. Ainslie says, it was from thence, as well as from the banks of the Rhine, that grape-plants were originally sent to the Cape of Good Hope, and that some of these from Persia now produce the red and white Constantia. This is generally considered the only good wine from that settlement. Dr. Ainslie thinks highly of the Madeira, made from the groene druyf; but Pontac is also a good and very sound wine. The Persians, it may be added, claim the discovery of wine, and call it zuhr-i-khoosh, or the delightful poison." (P. 146.)

Medizinische Zoologie, oder getreue Darstellung und Beschreibung der Thiere, die in der Arzneimittellehre in Betracht kommen. Von Dr. J. F. Brandt und Dr. J. T. C. Ratzeburg.—Berlin, 1829 und 1833.

Medical Zoology; being a faithful Representation and Description of the Animals which belong to the Materia Medica. By Dr. J. F. Brandt and Dr. J. T. C. Ratzeburg.—Berlin, 1829 and 1833. 2 vols. 4to. pp. 562. Sixty-three Plates.

EVERY animal that has the honour of furnishing any the smallest article for the medical arsenal, has a place in the work before us. Thus, the sheep, the sturgeon, the oyster, the viper, the civet cat, the burbot, the crawfish,* the blister fly, the bee, the leech, the cochineal insect, the ant,—are figured and described with German minuteness and fidelity. Some of the animals we have just mentioned, and many more, to be found in the learned volumes of Drs. Brandt and Ratzeburg, no longer contribute to the success of British practice, and are probably going out of fashion on the continent: yet we are not sorry to see them in such a work as this, -rich with the spoils of time-a work of reference for the professor, not a manual for the student, and to be consulted, rather than to be read. We strongly recommend this copious treatise to those who, unhampered by the res angusta domi, aspire to a complete medical library, as well as to every lecturer on zoology or materia medica.

• Every oyster-eater, that is to say, every one (with a few unhappy exceptions) knows that oysters are in season during the months with an R. Our authors inform us, that crawfish are best in the months without an R, and back their dictum with the following line, which appears to be a verse much the worse for wear.

Mensis in quo non est R. Tu debes edere cancer.

Perhaps it ought to be

Per menses sine R tu debes edere cancrum.

A very decent line for the media vel infima Latinitas, with only one false quantity in it.

ORIGINAL COMMUNICATIONS.

Cases extracted from the Note-book of HENRY DAVIES, M.D. Physician to the British Lying-in Hospital, &c.

CASES OF ERYSIPELAS TREATED WITH THE NITRATE OF SILVER.

1. Erysipelas and Purpura.

MRS. M., ætat. twenty-seven, residing in Gray's Inn lane, ten weeks after her confinement with her fifth child (which she suckled), finding that she recovered but slowly, went out of town to recruit her health. While on the water in an open boat, she was very much alarmed at the approach of a steamboat, and on her return to land as quickly as possible, she had a violent rigor, accompanied with syncope and succeeded by fever; the extremities became swollen, and her throat sore. She was bled twice, had leeches to the throat, and took aperients and saline medicine.

Sunday, June 15, 1834. Some discoloration of the integu-

ments of the fore-arm.

Monday, June 16. Saw her for the first time, in consultation with Mr. M'Donald. The left arm and hand appeared as if severely contused and ecchymosed; they were swollen and tense, from the tips of the fingers to a little above the elbow, where the tumour was bounded by an irregular but defined margin; there were some vesications about the fingers. The right-hand and arm were somewhat puffy, without ecchymosis, but there were three or four irregular, dark-coloured blotches, resembling purpura hemorrhagica, together with a similar patch on the forehead, one surrounding the left eye (with suffusion also on the conjunctiva), and a third very large patch in great part surrounding the mouth. These patches were unaccompanied by any tumefaction whatever, appearing simply as effused blood, and their appearance was unaltered by The pulse was feeble and frequent, 120-130; heat of the skin moderate; extreme languor and prostration of strength; voice feeble; deglutition difficult; fauces and back of the throat purple and swollen; tongue pale and coated. The left arm resembled somewhat Bateman's plate of Erythema marginatum, except that it was darker; the patches of the other parts resembled that of purpura. The patient was ordered to take a draught of salts and senna immediately, and

an ammoniated saline draught, with gr. iii. of excess of carbonate of ammonia, every four hours; and the following refrigerant lotion to be assiduously applied to the arm by means of linen. R. Liq. Ammon. Acet. \(\frac{z}{iv.}\); Sp. Vin. Rect. \(\frac{z}{ij.}\); Aq. Ros\(\pi\)\(\frac{z}{ij.}\); M. ft. Lotio. Weak beef-tea;—the infant to be applied to the breasts only sufficiently often to relieve their tension.

Monday evening. Has had two alvine evacuations, in which there is nothing unnatural; is extremely weak. The medicine to be continued, with the addition of twenty minims of Liq. Opii sed. at bed-time.

Tuesday, 17th. Pulse less frequent; voice somewhat better; local symptoms stationary. Ineffectual endeavours had been made to remove her ring on the Sunday, and it now caused so much pain that it was necessary to file it off.

Wednesday. Mouth and throat very sore; pulse 120, feeble; feet and legs cold; some wine and water was prescribed with a little brandy, in arrowroot or sago; a footwarmer was ordered to be applied to the feet, and they were to be placed in a mustard bath at night. Rep. Haust. Ammon. et Haust. Anodyn. et adde Ext. Papaveris 5ij. lotioni.

Thursday. Passed a good night; copious moisture on the skin; speaks better; tongue clammy and pale; mouth very sore, cannot open it sufficiently to allow the throat to be accurately examined; a good deal of stiffness round the right shoulder, which is very tender to the touch; ecchymosis extending upwards; the hand is less swollen; the fingers can be moved; discoloration more mottled in appearance; the patches on the face and those on the right arm are less florid, resembling the colour of the outer side of oyster-shells; the tips of the fingers ecchymosed; skin shrivelled, as if the hand had been soaked in water, and blood is effused under the surface. A pencil of Argentum Nitratum was moistened, and well rubbed round to the extent of an inch beyond the margin of the ecchymosis of the left arm; the senna draught has operated; dejections natural. Add gr. ii. of Amm. carb. and \(\frac{1}{2}\)i. Infus. Cascar. to each draught. Repeat the anodyne. and continue lotion with Ext. Papaveris.

Friday, 20th. Is generally improved; a deep ulcer on the

left tonsil, and sloughing of the uvula. Cont. Med.

Sunday, 22d. The ecchymosis had not extended beyond the cauterized boundary, from which there was a moist exudation; the integuments of the arm were softer and compressible, the colour brown and mottled; the shrivelled appearance of the hands had disappeared, and spots on the other parts were merely of a dusky or dirty colour; throat and mouth NO. VIII.

still sore, but improving. The patient cannot swallow anything but liquids; tongue cleaner; heat natural; pulse 96—100, very feeble. She was ordered to continue the medicines; to take coffee and tea with cream, and a little good ale, which she asked for.

June 25th. Countenance cheerful; complexion clear, and also right arm, except a dusky appearance at the bend of the elbow; the skin of the left arm desquamating in brown scales;

pulse eighty; tongue clean; appetite moderate.

June 30. Improving; light tonics with ammonia; an occasional purgative; a stimulant embrocation to the arm, and

generous diet. In a few days she was well.

In this case may be remarked, 1st. The extremely slow progress towards recovery which occasionally characterizes the puerperal state, without any manifest cause, and which is commonly symptomatic of disease in some of the deep-seated tissues of the pelvic viscera. 2dly. The supervention of the erysipelatous and purpuragic form of disease, immediately subsequent to the violent mental impression characteristic of the broken down state of the constitution, and loss of tone of the capillaries. And lastly, The utility of the nitrate of silver in arresting the progress of the erysipelas upwards. Its power is more fully exemplified in the subjoined cases.

2. Erysipelas supervening on Pneumonia.

I was requested to meet Mr. Bryant, of the Edgeware-road, April 4, 1830, to see Mrs. S., aged forty-eight, very stout, and generally healthy. She had had a severe attack of pneumonia, for which she had been largely bled, leeched, &c. &c. There was still some dyspnæa; a rapid vibratory pulse; foul tongue; extreme prostration of strength; and an erysipelatous blush on the skin of the face. She was purged; took calomel with opium, and a saline mixture with gr. ii. excess of ammonia every four hours.

April 6th. Her breathing was relieved, and her tongue cleaner; but the erysipelas now extended over the nose and eyelids; extremities cold; nausea and vomiting violent. This was eventually relieved by the cretaceous mixture, combined

with Tr. Opii.

April 8th. Has kept down some veal-tea; pulse less vibratory, feeble; tongue clean, florid; the whole face swollen, with part of the scalp and throat. The eyes were closed, and she was comatose and delirious. She was ordered to continue the ammoniated draught, and to have mustard pediluvia; with whey, and beef-tea for diet. On the proposal of Mr. Bryant the whole of the erysipelatous surface was rubbed over with

DR. LITCHFIELD's Case of Adhesion of the Placenta. 449

lunar caustic, the application being extended beyond the margin of the diseased surface. The progress of the erysipelas the next day seemed checked; but from having rubbed her face with her hands, and in her comatose delirious condition, her appearance was like anything but a woman in a favourable state. By continuing to use the carbonate of ammonia, with a mild nutritious diet, and preserving regularity of bowels, she gradually amended, and, at the end of a fortnight from the application of the caustic, she had quite recovered.

3. Erysipelas from a Contusion.

Dec. 1830. I was requested to meet Mr. Holton, of Lisson-grove, North, to see Mr. —, who, in getting from a coach, had received a slight contusion of the integuments of the right temple. This was considered, at the time, of little importance, but a few days afterwards he had an attack of fever, accompanied by sore-throat, and succeeded by erysipelas of the face and part of the scalp, extending to the ears and The whole was much swollen; he was delirious and comatose, with cold extremities, and extreme prostration of strength. In addition to the medicinal means employed, the whole erysipelatous surface was rubbed with Argentum Nitratum. From the projection of the beard and whiskers, the caustic had not got, in every part, so immediately into contact with the surface as was desirable; it was therefore reapplied on the following day, in the form of solution. The progress of the erysipelas was arrested; the power of deglutition was also improved; and from this time, assisted by appropriate medicine and diet, he gradually recovered.

Case of Morbid Adhesion of the Placenta. By Dr. LITCHFIELD. MARY FARRELL, ætat. 32, was attended in her first confinement by Mr. Barry, of Judd street, Brunswick square, in March last.

The labour, as described by Mr. Barry, was very lingering, the pains slight and at long intervals. Sixteen hours after the commencement of labour, the accoucheur in attendance administered half a drachm of the powdered ergot of rye, and this dose was repeated every two hours; at the expiration of twenty-four hours, a dead child was expelled, and the uterus contracted forcibly round the placenta, so as to baffle the repeated efforts of the accoucheur to remove it.

On the morning of the 12th of March, eighteen hours after the delivery of the patient, I was requested to see her in consultation. The uterus was found, upon examination, high up beneath the abdominal parietes, and contracted at its fundus into a hard and irregular tumour. The external parts of generation were swollen and painful, and the os uteri so rigid and unyielding as to resist the persevering efforts of the hand to

dilate it and reach the placenta.

The pulse at this period was full, hard, and at ninety-five; the tongue furred and feverish, the face flushed, and the patient complained of severe pain in the head; to relieve these symptoms, and lessen the force of the muscular contractions, I ordered ten ounces of blood to be taken from the arm, and prescribed small repeated doses of tartarized antimony; fomentations with flannels were also applied freely to the swollen pudenda; under this treatment the violence of the symptoms subsided, and fresh and long-continued, but unsuccessful attempts were again made, to dilate the os uteri, and detach the placenta.

During the latter months of pregnancy the patient had complained of fixed pain in the womb, arising, as she believed, from a blow in the abdomen; it seemed probable, under these circumstances, that the vessels of the uterine structure being stimulated to undue action, had thrown out coagulable lymph, by which the placental and uterine surfaces had become morbidly united. Being of opinion that it would be impossible, in the present state of the parts, to reach and overcome this adhesion, and having no fear of immediate hæmorrhage, I resolved to wait, and watch closely both the local and constitutional symptoms, abstaining for the present from further

manual interference.

In this way the case continued to progress until the fourth day, the patient remaining in a very satisfactory state. On the fourth day after delivery the discharge, which had setin as usual, became more copious in quantity, of a green colour, and very offensive smell: this last character was in some degree corrected by the use of injections of chloride of soda, and the patient went on, without any unfavourable symptom, till the ninth day, when a portion of the placental mass, equal to about one third of its usual weight, was thrown off in a state of putridity. From this period, small portions of the placenta continued to detach themselves at intervals, until the twenty-first day, when all that remained of the adherent structure was thrown off.

The progress of the case was unattended with pain or hæmorrhage; the patient improved rapidly during the time in spirits, strength, and appetite, and, at the end of a month from her delivery, menstruated in a regular way. Strong cartilaginous bands were found in the placental mass.

To the Editor of the Medical Quarterly Review.

Should the following case be deemed sufficiently valuable to entitle it to publication, I shall be happy to see it recorded in your ably conducted Review.

I am, sir, your obedient servant,

J. Howship.

Saville Row, June 15, 1835.

Case of Intus-susception, successfully treated. By John Howship, Lecturer on Surgery in the Medical School at the Charing Cross Hospital, and Surgeon to that Hospital.

In the delivery of my lectures on surgery I have, for some years, after describing the symptoms and treatment of strangulated hernia, been in the habit of pointing out the modes of discriminating those cases in which the symptoms of hernia are present, without the tumour; cases of internal stricture, or strangulation; concluding my observations on these obscure and complicated diseases by some notice of intus-susception, an affection which, when it has induced symptoms, almost invariably destroys life. On these occasions I have, among other cases, referred to one ending fatally, published by me in the Edinburgh Medical and Surgical Journal, shewing the preparation illustrating that case, and lastly have mentioned the following case, as one in which the symptoms were such as clearly identified the disease in the judgment of the practitioner first consulted, as well as in my own opinion; a case in which mechanical distention of the lower part of the intestinal tube succeeded in reaching the affection, removing the complaint, and consequently saving the life of the patient.

Tuesday, May 13, 1828. I was requested to see Miss J. W., a little girl about four years old, considered to be very seriously ill, having been seized on the preceding evening with pain in the belly, sickness at stomach, frequent and severe straining to go to stool, yet passing only blood, per anum. On seeing the child I found the above symptoms still existed, with quick and hard pulse, hot skin, white tongue, tension and tenderness of the abdomen. Finding she was already under the care of Mr. Plumbe, who had directed the necessary treatment, I recommended its continuance till the following day, to have the opportunity of meeting that gentleman

in consultation.

Wednesday, May 14. I met Mr. Plumbe, who stated that he had already applied leeches, tried an enema, which had immediately returned, and ordered aperient medicine, which was rejected; adding that from the symptoms, and especially the obstinate costiveness, he thought there was strong reason to suspect the existence of intus-susception; in which opinion I fully coincided. Aperient medicines and a warm bath were ordered.

Thursday, 15th. There was still no passage through the bowels, and all the medicine had been rejected as soon as taken. The pulse was now 160; the abdomen rather less tense and tender than on the preceding day. We both agreed as to the certainty (as far as it could be proved) of the existence of intus-susception of some part of the intestinal tube, and also as to the absolute certainty of the child's death, unless something more was attempted for her relief.

In this dilemma, I suggested that the introduction of a volume of warm water might possibly prove useful, provided the intus-susception was situated, as it generally is, in the great intestine; and that even if the affection was beyond the reach of this means, it could scarcely operate prejudicially, in a case obviously passing on to a fatal termination. This suggestion having been considered and approved, we met at

seven, P.M., to carry it into effect.

The fluid injected was warm gruel. I used Weiss's syringe, introducing the fluid very slowly, in order gradually to relax the intestine; the sides of the sphincter being pressed upon and supported, to prevent the return of the fluid, without which assistance the operation would have failed altogether.

At intervals the progress of the operation was suspended, to allow the pains from distention to subside; the purpose of the operation being also occasionally assisted by gentle frictions about the abdomen; and then more fluid was introduced, until we estimated the injected volume at between two and three pints. In fifteen minutes after the conclusion of the operation (which had occupied an hour), the child was allowed gradually to relieve the bowels, and in the liquid that flowed several soft fæcal masses were found. While the load of fluid was retained, retching came on, but nothing was thrown off from the stomach; the pulse fell to 110, but soon afterwards quickened again.

A senna mixture, in small doses, was directed to be given

at short intervals through the night.

Friday, 16th, two P.M. The pains in the belly, which with much severity had recurred every half-hour during the night previous to the operation, had only returned since that time once or twice, and then only very slightly. The calls to make water, also, were much less frequent than before; there was less tenderness of abdomen, and the child was more lively. The pulse was 130, and the abdomen still full, though soft.

The medicines, from the time of the operation, had uniformly remained on the stomach, and three hours after the administration of the injection, a fluid, bilious and fæcal motion, nearly a pint in quantity, had passed. The child was considered better, and the purging mixture directed to be continued, and a saline mixture to be also given.

Saturday, 17th. No return of pain, slight tenesmus, and two small watery motions. It was supposed that the bowels were now quite clear, but the aperient medicine was continued.

Sunday, 18th. The medicine three times taken, nearly two pints of solid pulpy fæces had passed the bowels, much to the surprise of the parents, who said it must have remained from the commencement of the attack, as the child had taken absolutely nothing since. The pulse was still 130, but she had slept well, and was quite easy.

Monday, 19th. She was active, hungry, and running about in excellent spirits, and, in short, entirely recovered; and has from that time to the present date enjoyed uninterrupted good

health.

It is scarcely necessary to add, that the principle on which mechanical distention was had recourse to in this case, was one by which it was presumed that the outer ring of the constricting intestine being of necessity induced to yield into a state of progressive relaxation, the warmth of the contained fluid would favour the relaxation, while its absolute pressure would by degrees wear out resistance; and that in this way, as the bowel relaxed itself, the whole of the included portion of the intestine might be eventually restored to its previous state of natural independence; and the event justified the assumption.

I am perfectly aware that those who are disposed to object, may easily find objections to the course adopted in the present case. The bowel might have been so far advanced in inflammation as to have prevented the success of the means used; no doubt it might, but this could have been determined only by the experiment, which would even then have left the case as it found it. Again, had the obstruction been situated in the small intestine, the valve of the colon would have rendered the attempt unavailing; this, also, is evident enough, but the trial proved that the difficulty was within reach, instead of

beyond it.

A more formidable objection however, in appearance, may be started, in the chance that the bowel might have been ulcerated, and that then the pressure of the contained fluid might have induced its escape into the cavity of the abdomen, and thus have destroyed life; but independent of the infrequency of this disease, at any age, its existence is less to be suspected in children, and least of all in a child obviously exhibiting every possible proof of good health, up to the very hour of the sudden attack, and it therefore would appear hardly reasonable to consign a patient over to certain death, because the means proposed, that may probably rescue him from destruction, may, by a bare possibility, in one such case out of ten thousand, prove a source of fresh danger.

Case of Traumatic Tetanus, occurring in the Norfolk and Norwich Hospital. Reported by Mr. ARCHIBALD DALRYMPLE, Norwich.

THE extreme obscurity in which the subject of Tetanus is involved, both as regards its pathology and treatment, induces me to add one more case to the long list. I am the rather led to do so in the present instance, from the opportunity it afforded of a careful post-mortem examination, although I confess the appearances presented were neither new, nor tend-

ing to elucidate the general train of symptoms.

It is true we have yet reaped little benefit from the recorded histories of tetanus, and that the morbid lesions do not appear sufficiently marked to account for the horrible symptoms attending this malady: still less is there any plan of treatment which can be recommended on the score of general utility; since almost every article of the materia medica has been tried in vain, till ingenuity has been tortured to contrive some novelty in the remedial applications. It is, therefore, not with any view of suggesting improvements in the method of treating this disease that I detail the following case, but simply to place upon record the symptoms of the malady in conjunction with the morbid appearances presented by the great vital organs, a few hours after death.

John Adams, aged forty-four, a man of large frame and great muscular power, and also of intemperate and violent habits, was admitted, under the care of my father, into the Norfolk and Norwich Hospital, on the afternoon of Thursday, December 19th, 1833, with a severe injury of the right hand, produced by the limb being caught in a machine at work for

cutting hay.

There was a compound fracture of the proximal phalanx of the index-finger, which hung only by the flexor tendons and a small portion of integument. The distal phalanges of the middle and ring fingers were completely separated from the second phalanges. There was a lacerated wound on the dorsal as well as on the palmar aspect; the integuments of the dorsum being drawn down over the fingers, like a reflected glove. There was no wound of the extensor tendons, nor was any articulation opened, except where the two last phalanges had been removed at the time of the accident. The wound in the palm was not deep, the palmar fascia not being divided. There was but little bleeding, two or three dorsal veins being alone divided. One or two branches of the inner cutaneous nerve were exposed. The man was drunk at the time of the accident.

The index-finger was removed, as well as one or two small splinters of bone at the point of fracture; the edges of the wounds were approximated as much as possible, and retained by means of adhesive plaster; a few strips of lint were placed over the wounded parts, and protected by a few light turns of a linen roller. Over these wet cloths were kept; the hand and forearm were raised; and an anodyne given. He passed a restless night, and in the morning became feverish and uneasy.

December 20th. He complained of much pain in the hand; his pulse was quick and full. There was some swelling of the lower part of the forearm, with very slight redness. Diaphoretics, with purgatives, were given, and low diet ordered. He continued much the same for the first three or four days, his bowels being carefully attended to, and his diet

regulated.

On the morning of the fourth day, (Dec. 23d,) the first dressings were removed: the hand was a good deal swollen, and some little inflammation was apparent over the wrist; not, however, to any great extent. There had been no union of any part of the wound. A large meal poultice was ordered to the whole hand every five or six hours, and the same diet and medicines continued. He expressed himself as feeling languid, and unable to get any sleep, in spite of large anodynes.

He went on thus for the next three days. The cuticle had begun to desquamate, and a slough, which had formed on the back of the hand, was beginning to separate: the discharge was very scanty and ill-conditioned. His pulse had become much reduced, and he was evidently a good deal pulled down by the treatment adopted. His skin had all along been soft and open; he had a clean and moist tongue, had less thirst, but was still restless. His hand was much easier.

On Thursday, the 26th, (a week after the accident,) his diet was bettered. He was ordered meat and broth, with half a

pint of porter, daily.

On the 28th, there was an improvement in his general as well as local condition: there was more discharge, and of a better character, from the wound; the line of separation was

more distinct, and a few small granulations were visible; the fingers also had assumed, but in a less degree, a healthier aspect. Bowels regular; skin moist. He expressed himself

as feeling better, and as enjoying his diet.

On the 29th, things were progressing favourably; but he complained of a sense of stiffness in the muscles of the neck and in those of mastication, which he attributed to the cold air of the ward. His skin was moist, and his bowels freely open. In the evening, however, he was unable to open his mouth; his teeth were firmly closed; the masseteres and sterno-mastoidei were contracted, and their edges defined. He had pain down the neck and back, accompanied by convulsive action of the muscles along the spine. It was now evident that he laboured under tetanus-trismus with opisthotonos. Six grains of calomel and three grains of opium were given about eight o'clock, at bed-time, and one grain and a half of calomel, with one grain of opium, ordered every hour through the night.

On the morning of the 30th, he was much the same; the teeth nearly closed; had taken the pills every hour, combined with a little camphor; has had no sleep; perspires profusely. Bowels twice relieved; pulse soft, not very quick, and with little power; is sensible; wound looking much the same; the same medicines to be continued, and two drachms of the strong mercurial ointment ordered to be rubbed every hour

along the spine.

A consultation was called at half-past eleven, A.M., at which the propriety of removing the limb was considered, but the unanimous opinion was against such a proceeding. It was determined to continue the same treatment, with the addition of a blister to the nape of the neck; the blistered surface to be subsequently dressed with some preparation of opium. The same diet, with wine, was continued; the hand to be still

poulticed.

In the evening he expressed himself as feeling better, although there were no external signs of it. His pulse was fuller and quicker; his skin moist; bowels freely opened; mouth much in the same state. The muscles on the right side of the neck were more rigid than on the left; the abdominal muscles hard and tense; has had no sleep; has taken some nourishment; blister has drawn; is now lying on his right side, whilst in the morning he was half sitting up in bed, with his head retracted; has less convulsive action down his back, but says he is very sore on being touched; is now unable to swallow pills, and therefore takes forty minims of the Liq. Opii sed. at each dose; hand looking much the same.

On the 31st he was worse; had passed a bad night; the spasms were very frequent and distinctly marked, all of them having a tendency to draw the body backwards; there was this morning a convulsive action of the diaphragm, and of all the muscles of deglutition, whenever he attempted to swallow; part of the fluid generally returns, in doing which cough and viscid expectoration are produced. Even the approach of fluids to the mouth excites, but in a less degree, the same phenomena. The right sterno-mastoid is the more rigid of the two. The muscles of the abdomen were just the same; his skin very moist; bowels freely relieved. One drachm of the mercurial ointment has been rubbed in, and the same dose of sedative liquor given every hour or two, and also as much wine as the spasms would allow of. His gums are slightly affected by the mercury; pulse 150, smaller, and of less force; says he feels much better, and is able to open his mouth a little wider. What can be seen of his tongue appears to be white; prefers all drinks to be hot; the hand looks better; nearly all the slough on the dorsum of the hand being loose, was removed; the granulations are healthy, and the discharge rather more ample and creamy. The second phalanx of the ring finger is perfectly bare; poultices still continued; the blister is dressed with an ointment composed of one ounce of lard to one drachm and a half of powdered opium. He is now sitting up in bed, with the head drawn backwards; the posterior cervical muscles are very rigid. The mercury rubbed in is now reduced to one half.

This man died about six o'clock. In the interval between the morning visit and his death, he had been more or less convulsed. Every attempt to swallow brought on spasmodic action of the extensors of the back; of the muscles of the fauces and cesophagus and diaphragm, producing cough, followed by a viscid expectoration of mucus. During the attempts to swallow, the contortions of his features were frightful; the countenance assumed a leaden-black hue, and the muscles of the face were strikingly developed.

About three hours before his death his left side only appeared to be convulsed, and latterly the left hand and arm vibrated so rapidly as to resemble the pendulum of a clock; the injured arm scarcely moved. To the last he was sensible. The specific effect of the mercury was apparent on his gums, but neither it nor the opium for one instant relieved his symptoms.

The following were the appearances, after death, of the brain and spinal marrow; the fauces and œsophagus; the larynx and trachea; the heart and lungs.

Brain. Little more was observable than a remarkable dryness of the membranes, and especially of the arachnoid, which was so dry as to appear quite glazed. The brain itself was firm, very little appearance of arterial vascularity, but considerable venous congestion; almost an entire absence of those bloody points usually seen in cutting down to the centrum ovale.

Between the theca and arachnoid mem-Spinal marrow. brane there was from half an ounce to three quarters of an ounce of colourless fluid; between the arachnoid and pia mater of the spinal marrow in the lumbar region, there was also a little fluid, also colourless. In different places there were cloudy patches of the arachnoid very evident. were signs of increased vascularity in the cervical region; these were less distinct in the upper part of the dorsal, but in the inferior part of the same region, and also in the whole of the lumbar, there were most unequivocal marks of recent inflammation. The whole of the 'cauda equina' was inflamed, and of a pinkish hue, just as is seen in inflammation of the sclerotic coat of the eye; the veins were congested and varicose; there was no visible deviation from the healthy texture of the part.

Fauces inflamed pretty generally, especially towards the pillars and amygdalæ; the papillæ at the base of the tongue

were much enlarged and inflamed.

Esophagus of a pinkish hue, and closely contracted; the inflammation less apparent, however, than any where else.

The Larynx, Trachea, and Bronchi were all similarly affected; the epiglottis was inflamed, but neither generally or intensely; the sacculi laryngis were considerably so. The larynx was generally inflamed, but in a less degree than the trachea, which, especially towards its division into the bronchi, was much reddened and inflamed; the bronchi were in a similar state, but became less so as they entered the roots of the lungs.

Lungs considerably congested at their posterior part; this partly arose from position. The free anterior edge of the right lung about its centre, was emphysematous over an area of two square inches, but this lesion was probably not of a

recent date.

Heart soft and flabby; muscular structure easily lacerable between the finger and thumb. The coronary vein, at its opening, would admit the tip of the little finger. The lining membrane of the heart on the left side was of its usual colour; that on the right side was of a deep claret or maroon colour, not lost by washing repeatedly.

Account of several Cases of Carditis: with Remarks. Communicated to the Harveian Society, by WILLIAM STROUD, M.D. Physician to the Northern Dispensary, &c.

(Continued from Vol. III. page 447.)

Account of a Case of Chronic Carditis, accompanied with partial Pneumonia, and with Hepatitis.

May 14, 1831. I visited for the first time, as a patient of the Northern Dispensary, William D****r, fifty-three years of age, who has for more than three years laboured under a pectoral complaint, which is aggravated in winter, and somewhat relieved during the summer. The principal present symptoms are pain at the pit of the stomach, and in the arms, with dry cough, confined bowels, disturbed sleep, and occasional headach. During eleven years he followed a seafaring life, but relinquished it about sixteen years since, afterwards worked as a blacksmith, and, finally, as a shoemaker. His habits were formerly intemperate, and five years since the left side of his chest was inflamed.

Prescriptions. Aquæ puræ, fʒvj.; Potass. Nitrat. zj.; Pulv. Acaciæ gummi, ziij.; Tinct. Digital. fzss.; Tinct. Scillæ, fzj.; Tinct. Hyoscyam. fziss. Sumatur fʒj. ter quotidie.—Extr. Hyoscyam. gr. v. omni vesp. horâ somni.—Extract: Aloes, Extract. Jalap. aa gr. xv.; Pulv. Cambog. gr. v.; Pulv. Colocynth. gr. x.; Ol. Croton. gutt. v.; Ol. Juniperi, q.s. fiant pil. xij. quarum sumantur ij. primo mane, prout opus fuerit.—Emplastr. Cantharid. Unguent. Cetacei, aa 3iv.; Antimon. Tart. 3j.; Ol. Camphor. fzij.; Fiat ceratum inter scapulas illinendum.

20. He is no better. The pain of his arms extends to his fingers' ends. His cough is troublesome, and his sleep much dis-

turbed.

Prescriptions. Præcord. affig^r hirud. vj.—Pulv. Digital. gr. vj.; Pulv. Opii, Pulv. Scillæ, aa gr. xij.; Pulv. Glycyrrhiz. 9j.; Syrupi q. s. Fiant pil. xij. quarum sumatur una omni vesp. horâ somni.—

Rep. med. præter Extr. Hyoscyam.

21. He is rather worse, complaining of pain in the pit of the stomach, with nausea, and, when lying on the left side, with pain in the heart. His cough is chiefly troublesome in the morning, and is accompanied by an expectoration slightly tinged with blood. His bowels are inactive, and his urine is scanty. On examination with the stethoscope, the respiratory murmur is tolerably audible, but the sound of the heart's action is dull, while the pulse at the wrist is strong.

Prescriptions. Extrah per V.S. sang. f\(\frac{7}{3}\text{xij.}\)—Pect. infer. admov Empl. Canth.—Aquæ puræ, f\(\frac{7}{3}\text{ivss.}; \text{ Mucilag. Tragacanth.} \) f\(\frac{7}{3}\text{iss.}; \text{ Tinct. Digital. f\(\frac{7}{3}\text{ss.}; \text{ Vin. Colchici, f\(\frac{7}{3}\text{ij.}; \text{ Liq. Antimon.} \) Tart., Tinct. Opii Camph. aa f\(\frac{7}{3}\text{iv.} \text{ Sumatur f\(\frac{7}{3}\text{j.} \text{ ter quotidie.} \)—

Extr. Hyoscyam. gr. v. omni vesp. horâ somni.—Rep. Pil. Cathart.

prout opus fuerit.

24. The bleeding gave some relief. The serum of the blood drawn was of a greenish colour. The blister was not applied. His urine is scanty and acrid; and his hands and feet are ædematous. He is drowsy, but the cough disturbs his sleep, and prevents his lying down.

Prescriptions. Extr. Hyoscyam. 9ij.; Elaterii, gr. iv.; Syrupi, q. s. Fiant pil. xii. quarum sumatur una, omni mane et vespere.

—Rep. med. præter Pil. cathart. Pect. infer. admov Empl. Canth.

26. The blister applied to the lower part of the chest operated well, and relieved the pain of the heart. The elaterium pills produced a considerable discharge of watery liquid, both from the bowels, and from the kidneys; but the legs are, nevertheless, ædematous. He is chilly, weak, and drowsy, with pain in the shoulders, and much shortness of breath. His cough, which is now attended with a copious white expectoration, is chiefly troublesome at night. His sleep is restless, he is unable to assume the recumbent posture, and sometimes wakes in a fright.

Prescriptions. Extr. Hyoscyam. Dij.; Pulv. Cambog. gr. xij.; Elaterii, gr. iv.; Syrupi, q. s. Fiant pil. xij. quarum sumatur una, omni mane, et repet^r p. o. f.—Mist. Camph. f\(\frac{z}{3}\tilde{y}\).; Potass. Acetat. zij.; Tinct. Scillæ, f\(\frac{z}{3}\tilde{ss}\).; Tinct. Opii Camph. f\(\frac{z}{3}\tilde{v}\). Sumatur f\(\frac{z}{3}\tilde{j}\). ter quotidie.—Pil. Sapon. cum Opio, gr. v. omni

vesp. horâ somni.

31. The patient gradually declined, and expired early this morning. His death was probably accelerated by an imprudent removal to a lodging in a neighbouring street, in consequence of an objection which had been made to the low, and damp situation of the kitchen, where he previously lived.

Post-mortem Appearances. An inspection having been obtained

the next day, the following appearances were observed.

General Conditions. The body was robust and well formed, exhibiting little cedema, and no fat. The skin was firm, and the muscles were thick and red. The head and spine were not examined.

Thorax. The cartilages of the ribs were nearly ossified, especially those of the sixth pair. The mediastinum was broad, and its cellular membrane dense. The right pleural sac contained a considerable quantity of reddish serum; and owing, perhaps, to the weight of this liquid, and of the diseased liver, descended deeper into the abdomen than its fellow, contrary to the usual occurrence. The inner surfaces of the left pleural sac were universally united by short and firm adhesions, apparently of old standing. The right lung was somewhat inflated, or emphysematous, but otherwise healthy. The left lung was much hepatized, more especially the central parts, which were dense and red, while those near the surface were tolerably sound and spongy. The distinction was very perceptible on pressing the several portions

between the fingers, when the one was found crepitous, and the other fleshy. There was no tubercle, vomica, or extravasation, either in the parenchyma of the lungs, or in the bronchial tubes; but the bronchial membrane, which was of a deep red colour, was coated with a little frothy cream-like mucus, and the mesochon-

driac fibres were very distinct.

The pericardium, with its contents, was of nearly double the The membrane itself was rather thickened, and contained several ounces of pellucid watery liquid. The substance of the heart was, in general, firm, thick, and red, evidently from the influence of chronic inflammation. The cavities on both sides contained a good deal of soft, red, and broken coagulum. The right auricle was much dilated. Its musculi pectinati were extensive, but loose, exhibiting the appearance of strong fleshy columns, with wide interstices. The right ventricle presented nothing remarkable. The left auricle was dilated, and somewhat thickened. Its auricula propria was singularly contracted, and convoluted in a spiral form, like that of a cornu Ammonis, but quite pervious to the apex. The walls of the left ventricle were very thick. The aorta was much diseased, and, to some distance from the heart, was of nearly double its ordinary size and substance. On slitting it up, the lining membrane was found hypertrophied, presenting a scabrous and irregular surface, roughened by decussating fibres, with intervening indentations and depressions. The aortic valves were somewhat thick and rigid, but less so than the opposite lining membrane, which was slightly ossified. All the other valves, both cardiac and arterial, were sound. The orifices of the coronary arteries were contracted, and not easily discoverable, being concealed by a thin transverse fold, resembling an irregular valve.

Abdomen. The peritoneal sac contained a moderate quantity of reddish serum. The omentum was voluminous, and extensively spread over the surface of the intestines, but free from disease, and almost destitute of fat. The stomach was inflated, and of large size. Its lining membrane was of a dark colour. The intestines were generally healthy, but some portions of the ileum were red and contracted. The colon at the sigmoid flexure was abruptly and considerably dilated, but, with this exception, the large intestine was throughout much contracted and indented, containing only a small portion of thin yellow fæces. The liver was, apparently, of nearly double its usual size and weight. making incisions into its substance, it was found to be universally dense, and uniformly mottled with red and white spots, like some varieties of porphyry. The gall-bladder was small, and inclosed a little dark-coloured and ink-like bile. The spleen, and the kidneys were firm and sound; as were likewise the mesentery, and

the urinary bladder, which was empty and collapsed.

REMARKS. Several of the observations annexed to the cases previously related, being equally applicable to the pre-

sent one, need not here be repeated. In a middle-aged man of robust frame, and vigorous constitution, a life of labour, hardship, and intemperance, occasioned chronic inflammation of the heart, liver, and left lung, attended with excessive growth, and increased redness and firmness of texture, but without any peculiar disorganization, or adventitious deposit. The pericardium, which was thickened, contained several ounces of pale serum, but was free from fibrinous exudation. All the cardiac pouches had acquired an increase of muscular structure, which predominated, as usual, in the left ventricle,

while the auricles alone were dilated.

This conjunction of hypertrophy with dilatation, which existed not only in the heart, but, also, in the aorta to some distance from it, may serve to show, in opposition to the doctrine of certain eminent authors, that inflammation depends not on mere debility in the part affected, but on a specific irritation, accompanied with various kinds and degrees of functional derangement. The extensive development of the musculi pectinati, and the remarkable convolution of the left auricula propria, owing, apparently, to a permanent contraction of its spiral muscular fibres, sufficiently prove that the expansion of their cavities was not the result of a simple deficiency of power. The increased and irregular growth of the lining membrane of the aorta had somewhat affected its valves, producing a tendency to ossification, and a partial obstruction of the orifices of the coronary arteries, which, probably, contributed to diminish the violence, and to retard the progress of the disease. This morbid state of the aorta is a frequent consequence of habitual intemperance, especially, perhaps, of indulgence in ardent spirits, and is often the primary cause of cardiac disease, which in this case seems, however, to have been chiefly independent.

When carditis is productive of partial pneumonia, the left lung is, from its vicinity, the part most liable to suffer; and on the same vicinity, apparently, depended, in the present instance, the hepatized state of its central lobules, while those near the surface were comparatively healthy. This occurrence, which is not very common, shows that inflammation does not always attack the whole organ at once; but, in some cases, is successively propagated from one lobule to another. The inflammation which obliterated the cavity of the left pleural sac could not, however, have been produced by this continuous process, and was probably coeval with that of the

heart.

Under these circumstances, and in the absence of internal cedema, the left lung was somewhat compressed and con-

tracted, while the right lung, being comparatively unaffected, had become emphysematous, and its pleural sac dilated, so as to contain at length a large quantity of red serum. This effusion was attributable, not to any morbid state of the membrane itself, but to the final obstruction of the circulation, a little before death, by the gradual and unequal failure of vital power; owing to which, also, the blood retained in the heart was in a state of soft and loose coagulation. The inflammation of the bronchia, which was probably secondary to that of the heart and lungs, had not promoted suffocation by any The thickened and conspiconsiderable effusion of mucus. cuous state of their contractile fibres, in this and similar cases, seems to indicate, agreeably to the opinion of some of the older medical writers, that they perform an important office, both in the healthy, and in the morbid conditions of the lungs.

The dropsical state usually attendant on such complaints. had not proceeded to any extent, either in the abdomen, or in the common cellular texture, having been chiefly confined to the serous membranes near the seat of the disease, namely the pericardium, and the right pleural sac. Its limited amount might be ascribed to the early failure of vital power, and to the original soundness of the constitution, to which, also, in conjunction with the hypertrophy of the heart, it was probably owing that the solid viscera of the abdomen were generally firm, and the liver, in particular, was much enlarged and condensed, exhibiting on section a mottled texture, like that of porphyry, the joint result, perhaps, of intemperance, and of cardiac disease. The increased development of the stomach, the dark colour of its lining membrane, and the redness and constriction of some of the intestines, were, no doubt, partly dependent on the obstruction of their circulation, occasioned by the morbid state of the liver and heart.

The symptoms of this case were so obvious and intelligible as to require but little comment. Independently of the evidence furnished by the history of the patient, the affection of the heart was sufficiently denoted by pain in the præcordia, when he lay on the left side; by pain in the epigastrium, with nausea, from irritation of stomach; and by the usual neuralgic pains in the arms, sometimes extending to the fingers' ends. The respiratory murmur was tolerably audible even on the diseased side, in consequence of the superficial lobules being permeable to air, although the central ones were hepatized. The dull sound of the heart's action, in conjunction with a strong pulse at the wrist, was characteristic of hypertrophy.

In accordance with the state of visceral disorder, the abdo-No. VIII. minal secretions were diminished, or vitiated. The bowels were usually confined, the urine was scanty and acrid, the serum of the blood drawn was greenish, and the small quantity of bile found in the gall-bladder was of an inky colour; but, with this exception, neither the pulmonary nor the abdominal symptoms were very conspicuous. Towards the fatal termination, the progress of serous effusion within the chest, and of consequent cerebral congestion, was indicated by difficulty in lying down, and by drowsiness and torpor during the day, while the sleep at night was restless, and sometimes suddenly interrupted with alarm.

In such a state, even slight causes of disturbance, and, more especially, the removal of the patient to another place, should be carefully avoided, since they are very capable, as was suspected in the present instance, of accelerating death. On the other hand, the fatal conclusion may often be retarded, and the symptoms mitigated, by a moderately antiphlogistic regimen, and by occasional small bleedings, blisters to the chest, diuretic medicines, and minute doses of mercury. Owing to its active hydragogue powers, elaterium will sometimes rapidly diminish the internal dropsical effusion, and thus afford a very remarkable, although, of course, merely

temporary relief.

Account of a Case of Chronic Carditis, terminating in Hypertrophy, accidentally discovered after Death.

April 30, 1833. Mary V******n, a young woman about twenty-two years of age, was visited, at six o'clock in the evening, by Mr. Williams, of Gray's Inn Lane, who found her in a deplorable state of want and misery, and far advanced in labour. She seemed to be extremely weak and exhausted, and, within half an hour from Mr. Williams's arrival, was safely delivered of a still-born male child, at the full period. She complained much of thirst, and expressed a wish for ale, which was allowed her. Her countenance was pale, and her pulse very small and quick. On the following morning, she was found rapidly sinking, with a pulse scarcely perceptible, and in a state of great anxiety, but perfectly rational and collected. Every suitable attention was paid to her in the course of the day; but, in spite of all the means employed, she died during the ensuing night, about thirtysix hours after delivery. It was ascertained, on inquiry, that she was unmarried, and that, under the guidance of her mother, a woman of violent passions, and grossly addicted to intoxication, she had led an irregular and intemperate life, and had been abroad during the whole of the day preceding

her labour, for which no preparations were made. From a very early age she had been subject to pains in the region of the heart, attended with palpitation and with a sense of weight in the chest; as likewise to rheumatic pains of the arms and shoulders.

Post-mortem Appearances. An inspection, at which I was present, was made about noon, May 3, by Mr. Williams, and Mr. Edward White, when the following appearances were noticed.

General Conditions. The body was free from discolouration, and rather slender, but well formed, and not emaciated. It contained little blood, except in the heart and large vessels, and scarcely any fat. The countenance was natural. The limbs were moderately flexible. The muscles were fleshy, and of a deep red colour. The internal parts exhaled a slightly acid odour, but putrescence had not commenced. The head and spine were not examined.

Thorax. The right pleural sac contained more than a pint of red serum. That on the left side was nearly filled up by numerous bands of adhesion, extending all round from the sternum to the spine. The lungs were sound, and supernatant in water. The upper lobes were somewhat emphysematous, the lower and posterior portions were slightly congested and ædematous. In both lungs, the bronchia contained a little frothy mucus, their lining membrane was deeply reddened, and their contractile fibres were very strong and conspicuous. The left lung was rather small. Several of its bronchial tubes were enlarged, and their lining membrane was thickened, so as to exhibit on section white circular patches, with a central perforation.

The heart was unexpectedly found to be the principal seat of disease, being at once dilated and hypertrophied, and nearly of three times its natural size. The two layers of the pericardium, universally and firmly adherent, were fleshy, rough, and of a deep red colour; and, at one spot on the upper part of the right ventricle more than an inch in diameter, was a thick cartilaginous deposit verging to ossification. The inferior vena cava was very large and turgid, but all the other vascular trunks seemed to have been compressed and reduced in size, by the contractile force of the inflamed pericardium; whilst, in consequence of the enlargement of the entire organ, their position was, at the same time, All the cavities of the heart were to a consisomewhat altered. derable extent thickened and dilated, and they all contained much blood, chiefly in the state of soft, loose, dark red coagulum, intermixed with some portions which were paler, and of a firmer consistence. The lining membrane of the auricles, especially that of the left, was white and opaque, as if from an interstitial deposit of albumen. The left ventricle, which was the principal seat of hypertrophy, preserved its expanded form and dimensions when cut open, and its fleshy columns were very prominent and distinct.

The cardiac valves, on both sides, but particularly the mitral, were somewhat thickened and opaque, from incipient interstitial deposit, tending in some points to ossification. The aortic valves were in a similar state, but not to the extent of interrupting their function.

The lining membrane of the aorta was free from disease, and the valves of the pulmonary artery were in their usual sound condition.

Abdomen. The stomach was large and thin, without rugæ, and contained more than a pint of alimentary liquid exhaling an acid odour. At the lower end of its greater curvature, the lining membrane was reddened by partial inflammation, and the neighbouring veins were enlarged. The intestines, also, were generally red and vascular, as if from irritation or congestion, but were otherwise healthy. The liver was larger than usual, especially the right lobe, the upper surface of which presented a rounded protuberance, elevating the superincumbent diaphragm. The left lobe was rather small and thin. It seemed that, in consequence of the impeded return of its blood, the liver had been generally gorged and hypertrophied. On section, its structure appeared slightly mottled throughout, and a good deal of reddish serum exuded. The gall-bladder was of full size, and contained about two ounces of thin brownish bile, without concretions.

The kidneys were of a deep red colour, and of fleshy consistence; but, together with the spleen, were quite sound. The uterus was in the state wherein it is usually found shortly after delivery, namely, about the size of three fists; its peritoneal coat being whitish, its walls thick and pale, its cervix soft and red, and its internal surface roughened by a little adherent coagulum.

The principal remark suggested by this interesting case of cardiac disease, is the singularity of an active and dissolute life having been compatible with so serious a complaint, which had, apparently, existed from an early age, and was, no doubt, much aggravated by habits of intemperance and irregularity. Independently of deficient nourishment, and mental emotion, death seems to have been at length occasioned by the rapid exhaustion which attended the act of parturition, leaving the diseased heart in a state of inability to maintain an efficient circulation. The failure of vital power was indicated by the copious effusion of bloody serum into the right pleural sac, and by the soft, loose, dark red coagulum found in all the cardiac cavities. The similarity, to a great extent, of the morbid appearances noticed in this case to those in the preceding one, will be obvious on inspection, and precludes the necessity of lengthened observations. chronic inflammation of the heart had been universal, producing increased thickness and firmness of the pericardium, the muscular fibres, and the lining membrane. The contractile force of the adherent pericardium, not inferior to that of the inflamed pleura, seemed to have compressed and diminished all the vascular trunks except the inferior vena cava, which was beyond its reach; and may, perhaps, by this means have contributed to the dilatation of the cardiac pouches, which were, at the same time, greatly hypertrophied.

Account of a Case of Chronic Carditis, terminating in Hypertrophy.

March 11, 1835. Edwin John B****t, a boy rather less than eleven years of age, and evidently in a very weak and broken state of health, was brought by his mother to my house, as a patient of the Northern Dispensary. About four years since, he is said to have been the subject of severe continued fever, and, during his convalescence, used to wander about the streets, and to sit down on the steps of doorways. His mother believes that, in consequence of this exposure, his feet were repeatedly chilled, and that a foundation was thereby laid for his present complaint, which, with occasional aggravations, marked by rigors, fever, and headach, has ever since been progressively increasing. He has much palpitation of the heart, with hurried breathing, and a dry cough, chiefly troublesome when he first lies down in bed. He lies ill on the right side; and, owing in part to the disturbed and panting state of his respiration, his sleep is interrupted, and attended with feverishness during the night, and with profuse perspiration in the morning. His pulse, in the sitting posture, is 130, and weak; his tongue rather white. He has little thirst or appetite, and formerly used occasionally to vomit his food. His bowels are relaxed, the dejections thin and dark coloured, and the urine scanty, red, and turbid. He has a propensity to pick his nose, which sometimes bleeds, as likewise other parts of his body; is gradually becoming weaker and more emaciated, and since the last week his legs have been ædematous. On close examination, his chest is found to be somewhat unequal and misshaped; its lower region, especially on the right side, yields a feeble respiratory sound, and little resonance on percussion. In the upper part of the chest, and in the back, the respiratory murmur is sufficiently audible. The action of the heart is too powerful, and too widely diffused, being heard in the epigastrium and between the shoulders, and strongly repelling the ear when applied to the left nipple, but is unattended with any peculiar morbid sound. The abdomen, which is prominent, and rather solid, but not hard, bears pressure well. Its lower region is more flatulent, and its upper portion, particularly the right hypochondrium, more firm and tumid, as well as somewhat painful. In conformity with these indications, the case was regarded as hypertrophy of the heart, accompanied with its usual effects, congestion of the lungs, and, probably, enlargement of the liver. The prognosis was, of course, unfavourable, although, on account of the youth of the patient, and his freedom from other disease, it was supposed that an attempt to diminish the action of the heart, and to reduce its bulk, might be made with some prospect of success.

Prescriptions. Præcordiis affigantur hirud. vj.—Inter scapulas admovr. Empl. Cantharid.—Aquæ puræ, f\(\frac{7}{3}\)vj.; Acid. Tartarici, zj.; Tinct. Digital. f\(\frac{7}{3}\)ss.; Tinct. Hyoscyam. f\(\frac{7}{3}\)jss. fiat potio.—Aquæ puræ, f\(\frac{7}{3}\)vj.; Sodæ Carbonat. zj.; Vin. Colchici, f\(\frac{7}{3}\)jj. fiat potio. Sumatur ex alterutr\(\hat{a}\) dum mixtæ effervescant, f\(\frac{7}{3}\)j. ter quotidie.—Hydrarg. cum Cret\(\hat{a}\), \(\frac{9}{3}\)j.; Pulv. Ipecacuan. gr. xv.; Pulv. Digital. gr. iv. Fiant chart. \(\pi\)quarum sumatur una,

omni vesp. horâ somni.

17. The leeches extracted a little dark-coloured blood. The blister operated well. The bowels are moderately open, the dejections firm, and the urine more natural. The boy slept well last night, but his sleep was previously disturbed by a dry cough. He perspires much early in the morning, chiefly about the head, and is somnolent during the day. He is rather less disposed to pick himself than before, and his legs are less ædematous. The heart palpitates much, but is free from pain.

Prescriptions. Extrahr. per V.S. sang. f3v. vel vj. Rep.

med. antea præscripta.

23. The bleeding was well borne. The blood drawn was thin and dark coloured, with little crassamentum, and much yellow serum. The alvine evacuations are natural. About two pints of red and turbid urine are passed daily. A little coagulated blood is discharged from the nostrils. The sleep is unquiet, and attended with moans and grinding of the teeth. The mind is tolerably cheerful. The body is feeble and wasted. The cough and palpitation are abated. The ædema of the ankles is nearly removed; but the knees, more especially the left knee, are swollen, stiff, and painful; and there is to-day, in the region of the liver, a pain so acute as to occasion cries.

Prescriptions. Aquæ puræ, f3vss.; Potass. Nitrat. 9ij.; Liq. Potass., Tinct. Iodini, aa f3ss.; Tinct. Hyoscyam., Vin. Colchici, aa f3ij. Sumatur f3j. ter quotidie.—Pulv. Glycirrhir. gr. xij.; Acetat. Morphiæ, gr. ij.; Syrupi, q.s. Fiant pilulæ vj. quarum

sumatur una, omni vesp. horá somni.

27. The pain above noticed in the region of the liver shifted the same day to the right foot, where it has since continued. The cough is troublesome, and excites pain in the abdomen. The stomach is oppressed on taking food or drink. The bowels are rather confined.

Prescriptions. Præcordiis affigr. hirud. vj.—Pulv. Rhei, gr. v.; Hydrarg. Submur. gr. j. Sumantur primo mane, prout opus fuerit.—Aquæ puræ, f\(\frac{7}{2}\)vss.; Potass. Nitrat. \(\partialij\)i; Tinct. Digital. m. xx.; Tinct. Iodini, Liquor. Potass. aa f\(\frac{3}{2}\)ss.; Vin. Ipecacuan., Tinct. Hyoscyam. aa f\(\frac{5}{2}\)ij. Sumatur f\(\frac{7}{2}\)j. ter, vel quater quotidie.—Pulv. Ipecacuan., Pulv. Glycyrrhiz. aa gr. vj.; Acetat. Morphiæ, gr. iij.; Syrupi, q.s. Fiant pilulæ vj. quarum sumatur una, omni vespere hor\(\hat{a}\) somni.

31. The leeches drew a sufficient quantity of blood, and occasioned some debility. Where the pain and palpitation had been the greatest, the blood drawn was extremely black. The cough is less frequent, but stronger, and accompanied with a thick and white expectoration; and there is much discharge from the nostrils. The right leg is swollen. He sleeps more in the morning, with much perspiration from the head.

Prescriptions. Inter scapulam sinistram et spinam dorsi verticali tractu inseratur setaceum.—Rep. med. sed fiant pil. narcot.

cum Acet. Morphiæ, gr. ij. tantum.

April 5. The seton has not yet produced any discharge. The boy passes about a pint of red turbid urine daily, and in general has three dejections, which are rather solid. He is free from pain, and sleeps better, but is otherwise little changed. The cough is occasionally troublesome, and remarkably so when the mind is agitated or depressed. The left temporal artery is often turgid. The swelling of the right leg has nearly subsided.

Prescriptions. Curentur ulcera ex setaceo cataplasmate lini.—
Aquæ puræ, f\(\frac{z}{z}\)v.; Sulphat. Magnes. \(\frac{z}{j}\).; Tinct. Digital., Tinct.
Iodini, aa f\(z\)ss.; Vin. Colchici, f\(z\)ij.; Liquor. Antimon. Tart.
f\(z\)iv. Sumatur f\(\frac{z}{j}\). ter quotidie.—Pulv. Ipecacuan., Pulv. Digit.,
Pulv. Glycyrrhiz. aa gr. vj.; Acetat. Morphiæ, gr. ij.; Syrupi,
q. s. Fiant pilulæ vj. quarum sumatur una, omni vesp. hor\(\hat{a}\) somni.
—Repetr. primo mane p. o. f. Pulv. Rhei cum Hydrarg. Submur.

10. The seton excites little discharge. The boy grows thinner and weaker, perspires much, has a strong appetite, and little thirst. His bowels are moderately open, and his urine is sufficiently copious. The cough is somewhat abated, but the nostrils discharge

much mucous liquid, and sometimes blood.

Prescriptions. Sumatur primo mane, p. o. f. Ol. Ricini, f zj. vel ij.—Aquæ puræ, f z̄vj.; Potass. Nitrat. zss.; Tinct. Digital. m. xx.; Liquor Potass., Tinct. Iodini, aa f zss.; Tinct. Hyoscyam. f z j. Sumatur f z̄ j. ter quotidie.—Pulv. Glycyrrhiz. gr. xij.; Acet. Morphiæ, gr. ij.; Syrupi, q. s. Fiant pilulæ vj. quarum sumatur una, omni vesp. horâ somni.

15. The seton produces some discharge; but the legs are again ædematous, the pulse is weaker, and the boy seems evidently to

be sinking.

Prescriptions. Rep. med. præter Tinct. Digital.

From this period he gradually declined, and died on the

20th of April, about eight o'clock in the morning. During the two or three last days of his life, he seemed to be conscious that his end was approaching. His principal symptoms at this time indicated congestion and oppression of the lungs; namely, troublesome cough, with bloody expectoration, and increased difficulty of breathing, and of lying down. He also complained much of an oppressive sense of heat about the head, requiring free ventilation; and, on the day before his death, with a view to obtain relief, cut off a good deal of his hair with his own hands.

Post-mortem Appearances. On inspecting the body early in the morning of April 22, the following appearances were observed.

General Conditions. Released from the contracted posture induced by the disease during life, the body appeared tall, and well made, and, although reduced, was not emaciated. There was no ædema, but the posterior surface was stained of a violet colour, extending to the sides of the neck. The face was rather livid and bloated, with bloody coagula adhering to the lips and nostrils, but its expression was natural. The limbs were flexible. The skin was in general pale, thin, and semitransparent, but sufficiently firm. The muscles were wasted, but of a good colour. There was little blood in the body, except in the heart and lungs; and scarcely any fat, except a slight layer under the skin, and that attached to the colon. Putrescence, although not commenced, seemed to be approaching, and was perhaps promoted by the influence of alimentary liquid in the stomach, which had become sour, and partially escaped from the mouth.

The head and spine were not examined.

Thorax. The left side of the chest was more prominent than the right, and yielded a duller sound on percussion. The muscles about the clavicles were thick and strong, owing, probably, to their increased action during life. The cartilages of the ribs were firmer than usual. The mediastinum was short and diffuse.

The heart was greatly enlarged, so as to occupy all the front of the chest from the top to the bottom. The left lung was, in consequence, pushed out of sight, and only a small portion of the anterior edge of the right lung, towards its lower end, was visible on removing the sternum. The pericardium adhered by numerous short filaments to the pleura lining the ribs and diaphragm, and its two layers were closely united into a thick dense membrane, of a dark grey colour, which was not easily penetrated by the scalpel, and could only be dissevered by laborious dissection. The heart was uniformly hypertrophied, both in length and in breadth, and of about four times its natural size. It contained a large quantity of blood, partly in the state of dark-red coagulum, very soft and almost liquid, and partly in that of firm yellow polypoid masses, chiefly occupying the auricles, especially the left auricle, and the arterial trunks. The lining membrane of the auricles was some-

what thickened and blanched, and the fossa ovalis was indistinct. That of the right auricle was roughened on the side towards the septum by a cluster of slender parallel ridges, apparently occasioned by an interstitial deposit of lymph. The auriculæ propriæ were small, but strong; the musculi pectinati plump and loose. cavity of the right ventricle was narrow and oblong, extending chiefly in the direction of the pulmonary artery; that of the left ventricle was capacious. The walls of both were thick, but, owing to the regular and uniform character of the hypertrophy, not excessively so. In the left ventricle, the carneæ columnæ exhibited in some places a sort of internal layer, partially detached from the external one. The cardiac valves were slightly tumid and opaque, as were also those of the aorta at their bases, so as to resemble the valves of an old heart, but without occasioning any impediment to their function. With the exception of the inferior vena cava, the vascular trunks, and especially the pulmonary veins, were rather small, and appeared as if they had been subjected to the constrict-

ing influence of the inflamed pericardium.

The right lung was attached by several narrow bands of adhesion to the ribs and diaphragm, but less firmly to the former. The lower portion of the costal pleura was deeply reddened, and there was a small quantity of bloody serum in the pleural sac. The lung itself was perfectly sound, free from tubercles, hepatization, and ædema, but so much congested and condensed as rather to float under water than upon it. Its substance was red and firm, but quite permeable to air. In the upper portion, the pulmonary veins were obviously dilated, and the pleura was spotted here and there with small white patches, as if from incipient emphysema. The lower lobe was more especially congested, and of a deep cherry colour, with few or no pores. The bronchial membrane was reddened, and contained a little frothy mucus. The glands were rather soft and pale, and considerably enlarged. condition of the left lung was nearly similar to that of the right one, but it was more crepitant, and at the same time partially ædematous. Between the pleural surfaces there was little adhesion, and no effusion. The lower lobe seemed to have been pushed upwards by the enlarged heart, and to have been gradually reduced by absorption.

Abdomen. The peritoneal sac was semitransparent, and nearly free from extravasated liquid. The omentum was somewhat retracted towards the left side. The stomach was large and thin, the pylorus slender and open. The outer surface of this organ was rather blanched, the inner one slightly corrugated. The upper part of the small intestine was white and thick, as if sodden; the lower portion thin and nearly transparent, as if verging to atrophy. Its contents were chiefly gaseous. With the exception of the cœcum, the large intestine was rather contracted, but was lined throughout by tenacious yellow fæces. Some of the mesenteric glands were a little red and tumid. The colon was studded with

a few appendiculæ epiploicæ, but there was no other fat in the abdomen.

The liver was large and heavy, and attached to the adjacent parts by several bridles of adhesion. Its peritoneal coat was of a dark colour: its substance was dense, and slightly hypertrophied, but nearly natural. Some portions were rather pale, but without mottling. The left lobe was of considerable bulk, as was also the lobulus Spigelii, which presented a sort of caudal projection. The vena portæ was capacious, but not over-distended with blood. The gallbladder, which was rather thin and spacious, was half filled with pale dilute bile. The spleen was flat and oblong, and of nearly double its natural size: internally it was of a pink red colour, and of firmer consistence than usual, with a few membranous interstices, or septula. The pancreas was large and loose, and the cellular membrane interspersed between its lobules was red and injected. The kidneys were very firm and fleshy, and of full size: their cortical substance was thick, of a deep red colour, and in some places bloody on section, but perfectly sound. The bladder contained several ounces of transparent high-coloured urine.

Remarks. This was evidently a case of simple hypertrophy of the heart, resulting from chronic carditis, excited during convalescence from continued fever, by repeated chills of the legs and feet. The existence of inflammation was sufficiently proved by the adhesion of the pericardium to the adjacent organs, by the intimate consolidation of its two layers, the developement of the muscular substance of the heart, and the incipient thickening of its lining membrane, amounting in some places to an obvious interstitial deposit. When carditis is occasioned by refrigeration of external parts, rheumatism of some of the larger joints or muscles usually intervenes; but, in this instance, the effect seems to have been produced directly, without any intermediate condition.

The proximate symptoms of the complaint were very plainly marked,—namely, pain and palpitation in the region of the heart, the action of which was too strong, and too widely diffused; together with dry cough, hurried respiration, a weak respiratory murmur in the lower part of the chest, and, ultimately, bloody expectoration. The more remote symptoms were equally conspicuous, depending chiefly, as it seemed, on impeded return of blood from various organs, with consequent congestion, and injury of function. In the head, this condition was denoted by turgescence of the external vessels, profuse sweating, and occasional epistaxis, or mucous discharge from the nostrils; also, by irritability of temper, disposition to pick the nose, and other parts of the body, and by disturbed

sleep, attended with moaning, or grinding of the teeth. In the liver, it was marked by fulness of the hypochondria, and at times by severe pain in the right side; in the alimentary canal, by impatience of repletion, and by frequent evacuations; in the kidneys, by red and turbid urine; and, in the lower ex-

tremities, by cedema, and articular pains.

The diagnosis thus clearly resulting from the influence of the hypertrophied heart on the lungs, liver, and stomach, was rendered still more distinct by the acoustic signs arising from auscultation and percussion, as likewise by the altered form of the chest. The agency of certain passions in producing temporary distention of the heart, was well displayed, on several occasions, by a sudden aggravation of the cough and dyspnæa, when the patient was vexed or irritated; and by their equally rapid subsidence, as soon as the mind was tran-

quillized.

The cadaveric appearances so exactly corresponded with the symptoms, the pathognomic signs, and the general character of the complaint, that they had been pretty accurately predicted during life. Independently of the usual results of chronic inflammation in the heart and its appendages, as already noticed, the lungs and the solid viscera of the abdomen were all more or less congested and condensed, the alimentary canal alone being more free from alteration than is commonly observed. Among other useful lessons furnished by this and similar cases, they serve to prove that irregular and obstructed circulation, with all its manifold consequences, may arise, without structural change, from simple disordered action of the heart and blood-vessels; and they show the importance of a due degree and proportion of vital action in the various parts of complex organs, the loss of which may readily give rise to inflammation or congestion.

The prognosis of hypertrophy of the heart, is, perhaps, generally unfavourable; but, in young persons, the natural resources of the system are so great, that, unless excessive derangement has taken place, they often survive when older patients would perish; and, by the gradual changes attendant on growth and nutrition, they are sometimes entirely relieved, after two or three years, from all traces of their original

disease.

The principal object of the treatment in such cases is evidently to diminish the bulk and action of the overgrown heart, without unduly weakening the general frame. In the present instance the practice was probably too debilitating, and more adapted to the primary inflammation, than to its advanced stage, or ultimate result. The violent action and

increased volume of the heart naturally suggest the use of lowering measures; but, unless much caution is observed, these may sometimes be carried further than the system will admit. The opposite extreme of an over-stimulating treatment is equally injurious; and, hence, an intermediate plan is manifestly indicated, consisting in a tranquil mode of life, aided by country air, passive exercise, a middle diet, and a due attention to the excretions. Active remedies should, perhaps, for the most part be avoided, and the homœopathic, or expectant, practice preferred; but, if any exception is allowed, iodine in moderate doses, and with suitable auxiliaries, seems to be the most appropriate medicine, possessing, as it does, when properly managed, the invaluable property of exciting absorption, and reducing morbid bulk, without occasioning proportional debility.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

REPORT OF THE SURGICAL AND OPHTHALMIC INSTITUTION OF THE UNIVERSITY OF BERLIN, FOR THE YEAR 1833.

This instructive account is contained in the first part of the 22d vol. of Gräfe and Walther's Journal. It is called merely an extract from the report; but, as it extends to seventy-five pages, we must still farther abridge it for the benefit of our readers.

Summary view. The number of patients treated in the year 1833, partly at their own houses, and partly in the hospital, was 1524; of whom, 1046 were surgical, and 478 ophthalmic. The total number of operations was 455; the surgical ones being 375, and the important ophthalmic ones 80.

Removal of the Margin of the Eyelids along the whole row of Eyelashes. This was performed on both eyes of a young man, on account of dystichiasis, causing inflammation of the eyes, with pannous cloudiness of the cornea. It was performed quickly, with comparatively little pain, without any injury to the shape of the eyelids, and with a perfect attainment of the object aimed at.

Formation of Artificial Pupil. The operation for this purpose was performed five times. In two cases, the patients could not distinguish the light, and the operation was performed only at their earnest request. It was done because several cases have occurred, where, in spite of complete insensibility to light, vision has been restored. The two patients in question were not so fortunate, but the operation was completely successful in the other three. The instrument used was Gräfe's coreoncion.

Extirpation of the Eyeball and both Eyelids. In this case a neglected trichiasis, of long standing, had caused a fungous degeneration of the eyeball and eyelids, as far as the edge of the orbit, to such a degree, that the approach of cancer was at hand. The cure was completed within a month. The remains of the eyelids gradually approached one another, almost covering the orbit; and, although the lachrymal gland was left behind, there was not the slightest trace of the secretion of tears.

Mr. Guthrie's Eye-ointment. Von Gräfe speaks in the highest terms of this remedy. The original formula is R. Argenti nitr. gr. iv—x.; Ung. Cetacei, zi.; Liq. Plumbi Subacet. gtt. i—xv. M.

Our author uses it in a milder form, as follows: R. Argenti nitr.

gr. iij.; Axungiæ, 3ij.; Liq. Plumbi Subacet. gtt. v. M.

He prefers it to a strong solution of lunar caustic in water, and not only employs it in diseases of the eye, but introduces it into the urethra in cases of torpid and obstinate gonorrhœa, in which it

does not cause any great pain.

Restoration of the Nose from the Skin of the Arm. The author expresses his gratification that the Italian rhinoplastic art, after having been forgotten for centuries, was first revived in his institution, has now been practised there for more than eighteen years, and has been copied at home and abroad. He was also the first to introduce the Indian operation on the continent, which has been oftener performed in proportion, in spite of the disfigurement caused by the scar on the forehead, a fact which is explained by its being much easier. Grafe has read much of improvements upon his method of operating, but thinks that few of them deserve the name: he has always, however, been ready to recognise real merit, and has therefore thankfully profited by Benedict's judicious improvement of the bandage. In other points he has retained all the essential parts of his early method, merely adopting those simplifications which time has, of itself, a tendency to produce; and he would, therefore, have been in the wrong, had he considerably departed from his former manipulations, in the case which he is about to narrate.

The patient was a girl, aged twenty-one, who had lost the whole of her nose from syphilis, with the exception of a small portion of the root. The skin of the forehead being unfavourable for the operation, and the skin of the arm strong, the Italian method was preferred. As the patient did not suffer any inconvenience from the position of the arm, the separation of the transplanted portion was delayed till the eleventh day. The formation of the septum narium took place in the fifth week; and, in the course of the third month the patient returned home with a very good nose. Erysipelas of the face occurred, which in this, as in some previous and similar cases, was actively and successfully combated by antiphlogistic treatment.

The paleness of the new nose was succeeded by the natural carnation of the complexion in the third month, which was unusually

soon.

Polypus of the Mouth, of unusual size, successfully treated. A patient, who had long suffered from dyspnæa and dysphagia, was found to have a polypus in the left nostril; and another, apparently independent of the former one, which filled up the cavity of the fauces. The latter polypus had pushed forward the velum palati, and, occupying its whole breadth, projected for half an inch under its edge, and rose so high upwards, that its boundaries could not be ascertained. The posterior surface of the polypus lay upon the mucous membrane in such a manner, that, at its accessible edges, it was impossible to get between it and the floor on which it had formed for more than a quarter of an inch. From the union of these circumstances, the operation, though absolutely necessary, appeared uncommonly difficult. Von Grafe, on considering the obstacles, determined to overcome them in the following manner: He first removed the nasal polypus (which was about as large as a plum,) with the forceps in the ordinary manner, in order to gain space for approaching the other one. As soon as the patient had recovered from the operation, and all traces of inflammatory reaction had disappeared, the operation was commenced in the following A strong doubled thread, an ell long, was passed, by means of a large bent needle, through the part of the polypus which projected from under the velum palati; the ends hanging out of the mouth were tied together in a knot, and then twisted round an ear, to keep them fixed. This was done partly in order to be able to extend the polypus forwards during the operation, and partly to be able to extract it quickly when its separation should be effected, and thus avoid all chance of suffocation from this heavy mass falling upon the glottis; an accident which happened to a patient of Professor Meckel. A silken cord, an ell and a half long, (such as Von Gräfe uses for ligatures,) was now passed round the head of Bellocque's tube, and the instrument was introduced as far as possible through the left nasal meatus. When it seemed to be in opposition with the anterior wall of the polypus, we pushed its spring between the velum palati and the polypus, until the head was visible, and, catching hold of the silk thread by means of the long-armed toothed forceps (which is employed for making the incision in the velum palati in the operation of staphyloraphy,) drew it out of the cavity of the mouth. This part of the thread being held fast by an assistant, Bellocque's tube (after withdrawing the spring) was taken out the same way that it had been inserted. The two ends of the thread now hung out of the nasal meatus. It was easy to foresee that, under existing circumstances, the loop would not be passed round the polypus at the first attempt; and a long thread was therefore fastened to the middle part of the ligature which was hanging out, so that, in case of the loop slipping over the polypus, it might be brought out again without the trouble of again introducing Bellocque's tube. After these preparations, the loop was widened within the cavity of the mouth by means of two small rods (Führungsstübchen). It failed, however, several

times in encompassing the polypus, because the loop could not be sufficiently widened. Von Gräfe succeeded at last by introducing both forefingers, and thus enlarging the loop. It was necessary to tighten the ligature two or three times a day. The polypus soon swelled so much as to impede respiration, and require incisions to lessen its bulk. This was still more necessary when sphacelus began, in order to further, as much as possible, the expulsion of the ichor. Meanwhile the cavity of the mouth was frequently rinsed with solution of chlorine, on account of the fetid smell. The polypus came away in three days, and, reduced as it was by suppuration, was three inches long, one inch eleven lines broad, and seven inches and a half in circumference. No medicine was given the patient afterwards, excepting an emetic, to relieve some gastric symptoms, probably caused by swallowing the sanies.

recovery was perfect.

Spontaneous Separation of the Right Half of the Lower Jaw, with its Articulating Process. The author begins by asserting, that necrosis of the alveolar processes is very common after scarletfever, when mercury has been given so as to produce salivation, especially in children. The mere abuse of mercury, without the scarlatina, rarely causes this disease. The remedy to be administered is fuming nitric acid, as in the following case. A girl, aged ten, had had scarlet fever and been salivated three years before, and had, in consequence, been attacked with constant pain in the jaw, and very fetid ulcers of the mouth. She had lost all the teeth of the right half of the lower jaw, and in the soft parts there were unclean and putrid ulcers, and the upper surface of the alveolar processes was laid bare to the same extent, so that the metal sound came against nothing but firm and yellow dead bone. The patient was ordered to take a drachm of nitric acid daily, in a pint of decoction of malt; she was also put upon the use of malt baths, and rinsed her mouth with a weak solution of chloride of lime, alternately with tincture of myrrh in water. The pieces of necrosed bone were gradually and cautiously removed, until one half of the body of the lower jaw was entirely removed, together with the alveolar processes, without any fresh necrosis arising. After the lapse of several months, while the medical treatment was still being continued with short interruptions, the posterior part of the jaw came away of itself, with the articulating head, which was unaltered in shape. While the pieces of bone came away, a cartilaginous mass, which gradually ossified, arose from the soft parts, and restored the power of moving and using the jaw.

This case resembles a very interesting one in the Memoirs of the Surgical Academy, in which both halves of the lower jaw, together with their articulations, came away by necrosis in an adult. It remains for time to show, says the author, whether there will be a fresh growth of teeth in the new jaw, as he has occasionally seen in similar cases, in which, however, the loss had been smaller.

Extirpation of Bronchocele. This operation was performed on

two patients. The first was a young man, of two and twenty, in whom the tumour was not larger than a goose-egg, yet the dyspnæa and dysphagia were intolerable. Only eight arteries were tied during the extirpation, and the parenchymatous bleeding from the thin paries of tumour left behind was easily stopped by cold water. The patient left the hospital in six weeks, perfectly cured. The second patient was a delicate and weakly girl, aged twenty-five, who had suffered since childhood from a bronchocele, consisting of three distinct tumours. It was thought prudent to operate on the middle one only, which was accordingly done, with the utmost success; for not only was the patient dismissed in six weeks, breathing freely, but the lateral tumours diminished in size from week to week.

Extirpation of a Steatomatous Tumour on the Abdominal Parietes. It is unfortunate, says Von Grafe, that divisions of the soft parts by operation have often been considered only in their mechanical relations, without a proper appreciation of their dynamic influence. The following case warns us of the danger of laying large surfaces bare in the vicinity of the great cavities, and much more of the risk of opening the thorax or abdomen; operations which have been undertaken of late years, with unjustifiable thoughtlessness, and without any reasonable motive. tumour, as big as a man's fist, lying under the obliquus externus, and continually increasing in size, caused the patient numerous inconveniences. The operation was performed with ease, but was followed by an attack of peritonitis. This was subdued, with difficulty, by three large bleedings, and the most powerful internal remedies; the greater part of the wound healed by the first intention, and the patient went out cured.

Amputation of the Penis. The patient was a man of sixty, who had been treated homeopathically for eight months, but in vain. The glans was affected with fungus hæmatodes, (Schwammkrebs,) and there was scirrhus extending nearly to the arch of the pubes. The operation was performed by ligature, and the patient left the hospital in four weeks, perfectly cured; nor was there any return of the disease, when he was seen several months afterwards.

Lithotomy. The lateral operation was performed in a man, aged fifty-eight. Von Gräfe's gorget was employed; the stone was of the size of a hen's egg; the operation was completed within three minutes. There was no hemorrhage of any consequence during the operation, but a considerable secondary hemorrhage took place two hours afterwards: the patient, however, improved from day to day, and was cured in a few weeks.

Ligature of the Brachial Artery in the Elbow-joint. The brachial artery of a robust man had been wounded in venesection. Plugging was found to be insufficient, and the parts grew too sensitive to bear the tourniquet. The patient came under the author's care three days after the accident. The arm was almost incapable of voluntary motion, considerably swelled from the fingers to the

shoulder, painful on pressure, very tense, and lividly red with spots of blue. The temperature was everywhere higher than natural Not the smallest trace could be discovered of the pulse either of the brachial or axillary artery; and that of the radial could be felt but obscurely. Grafe observes that, in a case of this kind, it would have been unadvisable to tie the artery high up, near the inner edge of the biceps; for, though the artery is easy to find there, this can be predicated of it only when the parts are in their normal condition. He therefore resolved to tie it in the elbow-joint, as he should there be guided by the jet of blood from the wounded artery. The ligatures came away on the seventh day. The pulsation returned above the ligature in the same proportion as the inflammatory swelling decreased. Not a trace was to be felt of the pulse at the wrist. The wound closed in the fourth week, with the return of sensation and the natural temperature. Motion, strength, and the power of moving the arm, were recovered in four months.

Aneurism by Anastomosis. The patient was a countryman, aged thirty, who had laboured since his second year under a swelling of the left hand, which had increased more and more. Strong pulsations were perceptible on different parts of the hand, and several pulsating, irregular, elastic cords were to be seen along the whole fore-arm, and in a less degree on the back part. The brachial artery was tied at the inner edge of the biceps, and a perfect cure was effected.

Paraguay Roux. Von Gräfe, during his last visit to France, found a remedy of this name, which was much extolled against the toothach. On his return he tried it himself, and found it excellent, though not infallible. It seems to have a specific influence over the alveolar nerves, and may therefore be useful in other affections as well as toothach. When applied to healthy teeth, the Paraguay Roux excites a sensation of gentle, not unpleasant warmth in the crowns, which seems to penetrate deeply and extend as far as the end of the root; while the particles which happened to touch the lips or tongue caused a pungent yet cool sensation, with increased flow of saliva, which rarely lasted more than five minutes. When the teeth were painful, the Paraguay Roux caused the same phenomena, and, with very few exceptions, alleviated the pain; the duration of this relief, however, was very different; sometimes it lasted five or ten minutes, and sometimes several When the pain returns, the application is repeated, and commonly succeeds in finally removing it, the third, sixth, or eighth time of using, without injuring the teeth, gums, or mucous membrane in the smallest degree, or leaving any unpleasant traces behind. Even when it was not a case of idiopathic neuralgia of the teeth, but depended on inflammation, rheumatism, or decay of the root, and was not cured by the appropriate treatment, this remedy maintained its efficacy. When the tooth is hollow, a few drops of the medicine are to be poured upon a bit of German tinder (Boletus igniarius), with which the cavity is to be filled up.

When the surface of the teeth is not carious, or when the pain extends to a whole row, the undiluted remedy is to be put upon the crowns by means of a brush, or else from fifteen to twenty drops diluted with a tablespoonful of water, are to be held in the mouth for several minutes, upon the affected spot. When it is used internally as an antiscorbutic remedy, ten drops are to be taken in wine every morning and evening, and the dose is to be increased by three drops daily, until thirty-six are taken. Von Gräfe has not yet tried its antiscorbutic virtues himself.

The Paraguay Roux is a patent remedy prepared at Paris by Roux and Chais; but Béral affirms that it is merely an alcoholic solution prepared from the Spilanthes oleracea, and Gräfe thinks that there is no difference between the patent tincture and Béral's. The green colour of both probably depends on spinage juice. The Spilanthes Brasiliensis and the Spilanthes fusca seem to have the same properties. The S. oleracea is also known by the name

of Para Cress.

Carrageen Moss. (Chondrus crispus, Grev. Fucus crispus Linn. Sphærococcus crispus Agardh.) The author became acquainted with this new remedy during a visit to England, a couple of years ago. He speaks of its demulcent and nourishing qualities in the highest terms, and affirms that it almost uniformly lessens the colic pains attending several affections of the intestinal canal. We cannot quite agree with him, when he says that the jelly made from it is free from any unpleasant taste, as it certainly has a slight fishy flavour. Perhaps, however, some of the additions which Gräfe recommends, such as bitter almonds, orange peel, orange flower syrup, &c. may be sufficient to overpower this. The following are the formulæ which he prefers.

R. Carrag. elect.* et concis. 3 ss.; Lactis recentis 3 ix.; Coque ad remanent. colat. 3v. adde; Sacchar. albiss. 3ss.—j.; Aquæ

amygd. amar. concentr. 9 j. M. et refriger. d.

R. Carrag. elect. et concis. 3iss. Coque c. aquæ fontan. 3xij. ad remanent. colat. 3v. adde: Syrup. rub. Idæi, 3iss.—3ij.

M. refriger. dentur.

Devis's [Davis's?] Solution of the Hydriodate of Potash. Gräfe has used this remedy with success in arthritic, scrofulous, and syphilitic diseases, and has found it of great service, when sarsaparilla and mercury had been employed in vain. It never caused any affection of the chest, or any important attenuation of the patient, or weakening of the digestive organs. The prescription is as follows: R. Potassæ Hydriod., 3ss.—3j.; Iodines, gr. ss.—j.; Aquæ destill. Zviij.; Syr. Papav. alb. Zss. M. d. s. A table-spoonful is to be taken three times a day, and the dose is to be gradually increased.

Sarlandiere's Moxas. These are made at Paris, by Sallé, an apothecary, probably from the lanugo of the Artemisia vulgaris.

^{*} The fucus, as met with in commerce, is to be stirred in cold water for five minutes, and, being then dried, is to be called Carrageon electum.

They do not require constant blowing, like other moxas; they burn with less smoke, and in intensity they hold a medium between the

mildest and most violent of those formerly used.

Remarkable Cure of Epilepsy. A servant girl, æt. twenty-four, had long suffered from hysteria, which, by the diminution of the catamenia, had been aggravated into epilepsy. Von Gräfe determined to endeavour to increase the catamenial flow by a mixture of aloes, rhubarb, and savine, and to act upon the imagination of the girl by inserting nephritic stones in the arms, and allowing the wounds to heal up and enclose them. A small serpentine stone, three or four Paris lines in diameter, was inserted into each humerus, and the wounds were healed by the first intention. It is remarkable that the first fit which occurred after this operation, and which was delayed much beyond the usual time, took place when one of the stones, which had not been inserted sufficiently deep, was just ready to fall out. It was taken out, and reinserted in another part of the arm. The catamenia became more abundant, and there was no return of hysteric or epileptic paroxysms.

New Compress Instrument for deep-seated Hemorrhage, occurring in the Lateral Operation for the Stone. We pass over in this place, says our author, the hemorrhages that occur from the division of vessels which can be reached by ligature, and mean to treat of those alone where, from the depth of the wound, a ligature cannot be applied. In these latter cases, it is rarely possible to decide with certainty whether the hemorrhage proceeds from a single large artery, or from numerous small vessels of the perineum, neck of the bladder, or bladder itself; for calculous disorders, by their continual irritation, often develope a vascular plexus not belonging to the normal anatomy of the part. In such hemorrhages, when repose, approximation of the thighs, the use of acidulous drinks, cold injections into the incision, and the application of ice to the perineum and region of the bladder, have all failed, we have no resource but the use of tampons. They are commonly applied by means of a female catheter, covered with German tinder, and pushed as far as the incision into the bladder. Richerand used the catheter, but without this covering, placed it along the lower angle of the incision, and endeavoured to fill up the space between it and the upper part of the incision by plugs of charpie pushed in to a considerable depth. As narrow tubes soon become obstructed by coagulated blood, Benjamin Bell proposed a hollow metal cylinder, somewhat flattened, and about an inch wide, which was covered with German tinder before using. All these apparatuses form cylindrical tampons, which are equal in diameter at top and bottom. If they are large enough to press the deep-seated vessels sufficiently, their introduction causes sensible pain, and the more external parts of the track of the incision suffer, without an object, the same degree of pressure which is required for the deeper points alone. Moreover, it must be considered that, from the equality of their superior and inferior diameters, these cylinders are very apt to slip out, unless remarkably well fastened, from the parietes of the incision giving way under the pressure; a thing which generally happens soon. To avoid these inconveniences, our author had an instrument made fifteen years ago: it is a tube constructed of several silver plates, put together so as to form a cone, which is capable of being broadened at its point. The small end of the instrument is introduced while shut, and, by opening at the spot required, presses upon the vessel. Gräfe gives several figures representing this ingenious contrivance; but, as we have not this advantage, we think it needless to perplex our readers by a further

description of the instrument.

Creosote. Gräfe has not seen much benefit derived from the use of this preparation: it destroyed, indeed, the smell of ichorous and putrid ulceration, but not more readily than was effected by the application of simple tar-water, cinchona, pyroligneous acid, chloride of lime, or charcoal. In impetigo (Flechten), and in scrofulous and phagedenic ulcers of various kinds, it was not remarkable even as a palliative; far less did it cure them. Pure creosote, applied to the cancer of the skin, produced changes of a doubtful kind, which never led to recovery; and this in cases where, after its fruitless application, the author soon effected a cure by means of his corrosive ointment. Nor did its internal use answer the expectations which had been cherished. In cases of chronic eruptions of long standing, and spreading impetigo, it was prescribed in doses of half a drop, gradually increased to fifteen drops twice a day, without any effect, good or bad. When dropped upon cotton, and inserted in the hollow of carious teeth, it sometimes removed the pain, but could not be relied upon. Grafe has therefore, as yet, no confidence in the medicinal virtues of creosote.

Graham's Remedy against Cancer. This seems to consist chiefly of phosphate of iron. Many preparations of iron have long been employed, both internally and externally, against cancer, especially the carbonates; but Gräfe has never seen any essential advantage derived from their use, and Graham's composition is not

better than the others.

AN OPIUM-EATER.

Dr. Christison in the second edition of his work on poisons has added some valuable remarks upon opium-eating (p. 626-629.) A remarkable trial which occurred after the publication of the first edition drew his attention forcibly to this subject; he found, he says, that practitioners and toxicologists generally possess little or no precise information on the subject, but he hopes that what he has to state will induce other persons to contribute their knowledge towards filling up so important a blank in medico-legal toxicology. A wish expressed by so eminent a writer may perhaps be considered an excuse for my giving the following account of an opium-eater, though I must confess that it contains nothing very striking.

April 6th, 1835. W. B. a light porter, ætat. 51, was in the

Middlesex hospital about 24 years ago under Dr. Gower; his disease was acute rheumatism, for which opium was administered. He began opium-eating immediately on leaving the hospital, but the quantity he took was so small that it might be considered rather the continuance of his medicinal doses, than the commencement of opium-eating. At this time, half a drachm lasted about three weeks. This was gradually increased to a drachm and a half a week, or sometimes a little more, which has now been his dose for five years. The opium scarcely constipates his bowels; his urine is free, his appetite very good, his sleep sound, his pulse regular. He is not subject to headach, excepting a sick headach once a year or so. If he goes without his opium, he feels a sinking and gnawing in his inside. He says that he rarely takes spirits and but little beer. (I heard however from another and authentic quarter that he is far from abstinent with regard to spirits.)

In spite of the favourable account which he gives of himself, the appearance of W. B. is such as to hold out no encouragement to opium-eating. He is sallow, listless, and weak, and his tone is the very reverse of that of a man in good spirits. He says that his father, a medical man who died at the age of 66, had eaten opium in very large quantities for many years. Perhaps, then, part of his torpor may be hereditary.

E. A. Domeier.

CASES OF PARALYSIS OF INDIVIDUAL NERVES OF THE FACE. BY DR. CHRISTISON.

1. Palsy of the Third Nerve, or Motor oculi; recovery under free venesection and mercurial salivation. A stout blacksmith, of middle age, and much given to drinking, was admitted into the Fever hospital, supposed to labour under continued fever. During the confusion incident upon opening the hospital, and receiving a great number of patients before the appointment of a physician, the exact nature of his case was for some days overlooked. But a day or two after my appointment, my attention was called by Dr. W. Reid, then superintendent of the hospital, to a considerable squint of the left eye; upon which the following account was given by the patient.

Three weeks before his admission into the hospital, and immediately after a debauch, he first remarked that he saw double; and at the same time he was affected with ringing in the ears, headach and giddiness, which last symptom was particularly troublesome when he kept his left eye open. After a fortnight he had rigors, general soreness, and increase of headach; and for ten days after admission into the fever hospital, he had the symptoms of a mild attack of general fever, with continuance of double vision. Subsequently the two images gradually approached one another, till at length they coincided, and he saw single; and at the same time the general fever ceased. When first carefully examined a few days after that, it was observed, that the left eyeball was turned very much outwards; that he had no power whatever to turn it

upwards, inwards, or downwards; that when desired to look up he merely rotated the eyeball on its horizontal axis inwards; and that the upper eyelid always hung over the ball, so as to be in contact with the lower, except when he was told to raise it, upon which he uncovered half only of the pupil. The pupils were equal in size and contractile, and when he closed either eye he saw quite well with the other. The vision with both eyes was not double. He had frequent diffuse headach, but no disorder in any other function.

For some days after this examination, the state of the affected eye varied, as he occasionally recovered imperfectly the movements of the eyeball for twenty-four hours at a time. But at length they were lost entirely. The treatment for ten days after the paralytic affection was remarked consisted in the occasional application of leeches to the temple, and of a blister issue behind the ears, together with frequent laxatives. No amendment, however, was procured from these measures.

Four or five days later, when he had been three weeks in the hospital, his headach began gradually to increase, and the pulse to rise; in a day or two more he complained of great general soreness of the head, and of shooting pains, numbness and diminution of muscular power in both limbs. Blood was therefore drawn from the arm to the amount of two pounds. It was very buffy, and gave immediate relief from the headach. Calomel was also prescribed in the dose of five grains four times a day, with a little opium, for the purpose of quickly affecting the mouth. When this had been continued four days, the affection of the limbs ceased, and the fever abated considerably; but a slight deviation was remarked in the tongue to the left, and in the mouth towards the right side, while at the same time the affected eye was turned more outwards than ever. On the sixth day of the mercurial treatment his gums became tender; and the calomel was therefore discontinued. A moderate salivation immediately followed. fourth day after the discontinuance of the calomel, there was an obvious improvement in the state of the eye, and in twenty-four hours more the improvement was considerable. The movements of elevation, depression, and adduction of the eyeball, could be performed to half the natural extent, and he could raise the evelid so as to uncover two thirds of the cornea. At the same time the deviation of the tongue and mouth, the headach, and all his other complaints ceased.

From this time he improved rapidly and steadily, so that in a week after the lost movements recommenced they could be performed perfectly. The salivation lasted twelve days, and was always gentle. In twelve days more he was dismissed quite well, having been in the hospital seven weeks.

It is worthy of remark, that after the movements of the affected eye returned so completely, that this eye, when the other was covered, could allow a moving object briskly in any direction, some days more elapsed before the affected eye accompanied the other in its movements, when both were uncovered. For example, if the patient was directed to look at an object straight before him, he squinted the left eye outwards, and looked at it with the right only; but if he was told to look at it while the right was covered, he turned the left on it; and when the right was then uncovered, he directed both eyes on the object, and for a few seconds followed it with both, when it was moved before him.

I shall not attempt to explain the singular fact mentioned at the commencement of the case, as to the man first seeing double, and then remarking a gradual approximation of the two figures till they coalesced, and he saw single, while the squinting of the eye nevertheless continued. This is so different a phenomenon from what we should expect in the circumstances, that I shall not insist on the accuracy of the statement, because it was drawn up from the man's own account of what occurred some days before I saw him. Yet it is fair to add, that he always gave a very clear narrative of the progress of his illness, and never deviated in any particular from his first statements. In such a case, we should expect, not that the images would gradually approach and coalesce, but simply that the individual would gradually acquire the habit of abstracting his attention from one of the images, and so recover single vision.

2. Palsy of the Portio Dura of the Seventh Nerve on both A young man of middle stature was admitted into the Fever-hospital on account of a smart attack of continued fever of the inflammatory type, but without any particular local inflamma-On the fourteenth day of the disease he got quickly better by critical sweating, the pulse falling from 120 to 72 in the course of a single night. Nothing occurred to interrupt convalescence till the end of the fourth week, when he complained of a sore mouth, for which a vinegar wash was ordered. In five days more, however, the man continuing still to complain of his mouth, a careful examination was made, when the dead stillness of his countenance at once attracted attention. The lips were completely palsied and could not be closely shut, the nostrils could not be curled, the upper eyelids could not be closed, and he could neither laugh nor whistle. At the same time the sensation of the affected parts was everywhere perfectly entire. He had not the slightest fever, no headach or local pain of any kind, except soreness of the mouth; and his only complaint, indeed, was of the dryness and soreness of his lips.

Low diet was ordered, blisters were applied behind the ears, and leeches immediately before them, and laxatives were frequently administered; but without the slightest advantage. About this time the last patient, with palsy of the motor oculi, recovered apparently under the operation of mercury. The same treatment was therefore applied in the present instance, and a smart salivation was brought on, which terminated in a copious impetiginous eruption over the whole face. The patient, however, did not derive the

slightest benefit. All the parts supplied by the muscular portion of the seventh nerve on each side of the face continued in a state of perfect paralysis. After remaining three months in the hospital he was dismissed in the same condition; and I have never since been able to receive any information of the progress of his disease.

3. Paralysis of the Portio Dura of the Seventh Nerve of the Right Side.—When in the country last autumn, I was requested to visit a young man who was supposed to labour under palsy. His paralytic affection was of five or six days' standing; and it was preceded for some days by severe aching pain in the whole right side of the face. When I saw him the pain had ceased; but the whole right side of his face was completely paralyzed. In a state of repose it did not present any peculiar appearance, except considerable depression of the right eyebrow. But on careful examination, I found that he was unable to whistle, to curl up the right side of the nose, to elevate the right eyebrow, or to close the right eyelid, and when he laughed the mouth was drawn much to the left side. The right eye watered a good deal, and when told to close it, he closed the lids imperfectly, and turned the pupil upwards beneath the upper eyelid.

He complained of acute pain on pressure upon the cheek in the region of the exit of the infra-orbitary nerve, and likewise in the jaw at the exit of the inferior maxillary nerve upon the chin, also of tinnitus aurium when at work. He had never had headach, or any pain or swelling before or around the ear; neither was there ever any weakness of the limbs or arms, any material difficulty in speaking, or divergence of the tongue from the straight position when thrust out. The sensation of the cheek, too, was quite entire.

The pulse was natural.

I recommended him to have a blister applied frequently before and under the right ear, and after following this plan of treatment to resort to a mild course of mercury, if he was not relieved. Six blisters were in consequence successively applied between the close of September and beginning of December, and during the latter part of that period mercury was given so as just to affect the mouth.

Some amendment was remarked after the application of the last blister, which extended from behind the ear to the chin, and acted very severely. Till then he experienced no improvement, and since then he has made but little progress. I am unable to state the precise amount of amelioration that has taken place; but I have been informed by the clergyman of his parish, that he can now close the right eyelids completely, but does so very slowly, that the other palsied actions of the muscles of the face appear to remain nearly as when I saw him, and that he has still acute pain on pressure on the cheek under the eye, or on the lower jaw near the chin, but that he continues entirely free of general palsy or any head symptom.

Aug. 18, 1834. The patient eventually got quite well.

4. Palsy of the Optic Nerve?—The next case to be mentioned

I have entitled palsy of the optic nerve; although I believe the

propriety of the name is doubtful.

A middle-aged man, of meagre habit, and very deeply scarred with smallpox, was admitted in the summer of 1829 into the surgical department of the Infirmary, on account of chancres and bubo. The chancres soon healed; but the sore left in the groin after the suppuration and opening of the bubo was untractable. While in this state, he was attacked with dysentery, which at that time (autumn 1829) prevailed in the hospital, and was so fatal that about a fourth of those who were taken ill perished. Being transferred to the medical department on account of the dysenteric attack, he became my patient. At this time he had dysentery in its worst form, and although the acute stage was soon subdued, the symptoms nevertheless showed that extensive ulceration had taken place in the intestines; and he died six weeks after I saw him.

At first no attention was paid to the circumstance of his being blind of an eye, as the marks of severe confluent smallpox seemed to account for it sufficiently. But on his mentioning to me incidentally, that the sight was lost only two years before, careful inquiry was made; and it was then learned, that, on the occasion alluded to, he had been a patient in St. Bartholomew's Hospital, London, with severe headach, giddiness, feverishness, and incomplete palsy of one of his sides; and that he gradually got the better of these symptoms, but was at the same time attacked with inflammation of the left eye, which burst, and became totally blind.

It was natural in these circumstances to expect that some injury would be found in the course of the fifth nerve. This nerve, however, was found quite healthy so far as the sight and touch could determine. But the optic nerve of the affected side, between its exit through the orbit and its decussation with the opposite nerve, was not more than half the breadth of the other, and was gray in colour and flaccid in texture. Between the point of decussation and the thalamus of the opposite side it was of the natural whiteness, but softer and less than its fellow; and the thalamus itself was somewhat flattened. The brain was otherwise healthy, except that a very great watery effusion had taken place under the arachnoid coat over the whole external surface, which appeared to account for the severe headach and frequent incoherence remarked towards the end of his illness. There was no appearance of an old cyst or other disorder in the substance of the brain. was covered to an enormous extent with ulcers in various stages of progress. The left eye was completely disorganized.

I am quite aware, that, in calling this case palsy of the optic nerve, I may err in taking for the cause of the destruction of the eye what was really its effects. Neither do I pretend to say, that there is much probability in the view here given. But it appears to me right to make known the particulars, because it is not impossible that diseases of other parts of the nervous system besides the fifth nerve may lead to destruction of the eye, and this is presump-

tively a case of the kind, the presumption being founded on the bursting of the eye having been immediately preceded by some organic disease of the brain, and being not associated as usual with disease of the fifth nerve.—Edinburgh Med. and Surg. Journal.

ACCIDENTAL OCCLUSION OF THE VAGINA, FORMING AN OBSTACLE
TO DELIVERY.

BY C. HOILLEMIN, D. M. P. OF AUX CAYES, HAYTL.

Madame — de —, when twenty-five years of age, had an exceedingly difficult labour, lasting three days; during which she had no other assistance than that of an inexperienced midwife. The external parts of generation, as well as the vagina, were attacked with violent inflammation, which was followed by an almost complete closure of the vagina, only a small opening remaining, scarcely sufficient to allow of the passage of a goose quill. She long suffered from incontinence of urine, and much difficulty in

walking.

About June, 1830, Mad. —, then twenty-seven years of age, first consulted me. She was at that time suffering with nausea, loss of appetite, progressive increase of the abdomen, swelling of the breasts, &c. I immediately recognised all the symptoms of pregnancy at the third or fourth month, and informed Mad. — of it, who replied that it was impossible for her to be pregnant, since she could not cohabit with her husband, because her parts were closed, "ses parties sont fermée," (this was her expression.) The husband, who was present, confirmed all that his wife had said. Nevertheless, I assured her, that she was undoubtedly pregnant, and I did my best to tranquillize her great uneasiness, for she incessantly repeated that it was impossible for her to give birth to her infant.

The 30th of December of the same year, Mad. — sent for me at midnight. Labour pains had just come on. On examination I found that the vagina was closed by a firm membrane, extending across it, and which was thickest laterally. Near the meatus urinarius, a kind of fleshy band originated, which was lost in the partition. In the centre of this last there was a round opening, scarcely large enough to admit a quill, and the margin of which

was thick.

I proposed to Mad. — to divide the membrane closing the vagina, to which she consented. After the uterine contractions had continued for six hours, I took advantage of the moment when the membrane was pressed forward and downwards by the membranes and the head of the child, to divide the margin of the opening, and then inserting the index-finger of my left hand between the head of the infant and the partition; with my right hand, I passed the blade of a straight probe-pointed bistoury upon the finger which served as a conductor, and cut the membrane from within outwards, on the left side, to the extent of an inch, and then waited the effect of the renewal of the uterine contractions. After an hour, during which these were strong and frequent, the opening not enlarging,

the membranous partition being constantly pressed down, I made another incision from within outwards on the right side, so that these two incisions formed a triangular flap, the base of which was towards the sacrum. The umbilical cord immediately protruded; the waters, which were discharged, were black, and exhaled a strong and disagreeable odour. Mad. - became covered with a cold sweat; had repeated faintings; her pulse was almost imperceptible, and the uterine contractions were infrequent. Suspecting that the child was dead, from there being no pulsation in the umbilical cord, and having great fears for the mother, I hastened to terminate the labour by delivering with the forceps. The child appeared lifeless; its surface was livid, indicating cerebral congestion. After dividing the cord, I allowed three or four ounces of blood to flow; I employed dry frictions over the cardiac regions, &c., and was not a little surprised to see the infant revive, as well as the mother, both of whom are at present in the enjoyment of perfect health.

Precautions were taken to preserve separate the parts which had been divided, and to prevent their reunion; the opening of the vagina was thus reestablished in its natural state. The triangular flap resulting from the two incisions gradually diminished, and at the end of two years no trace of it remained, and Mad. — could cohabit with her husband without experiencing any inconvenience.

This case appears to me to be interesting in a double point of view, both as respects the delivery and conception. I submit it to the profession, believing it to be not unworthy of their observation.

—American Journal of Med. Sciences.

DR. HOPE ON THE SOUNDS OF THE HEART.

Dr. Hope has lately appended to his work, on Diseases of the Heart, a Supplement on its Sounds; and, as the subject is one of great importance in the diagnosis of cardiac disease, we make no apology for reprinting the whole of the appendix.

"It has, I believe, been almost universally admitted, both in this country and abroad, that the experiments detailed at pages 21 and 30 fix the first sound of the heart on the contraction of the ventricles, and the second, on their dilatation. The experiments did not demonstrate the immediate causes of the sounds, and my inferential explanations of them (at page 48) were soon doubted. Some thought that the closure of the valves was the cause; and I readily cede the merit of originality in this supposition to M. Rouanet, Mr. Bryan, M. Bouillaud, Mr. Carlile, &c.: others, as Dr. Williams, ascribed the first sound to the muscular sound, on which I have (at page 47) given an opinion essentially substantiated by the subjoined experiments.* If my explanations were erro-

[•] The opinion of M. Magendie, who ascribes the sounds to the beat of the heart against the ribs and the spine, does not require grave notice, being refuted by the experiments, page 23 and 26; and by the subjoined experiments, No. 11: See also Hydropericardium, page 515.

neous, it was my duty to correct them; I therefore commenced in 1832 a new series of hospital researches on the living and dead subject, and soon satisfied myself that the first sound was loudest over the middle of the ventricles, and the second, over the sigmoid valves, and thence for a few inches upwards; also, that when a healthy subject was faint, the first sound lost its prolongation, and became short and smart like the second; whence I inferred that, in its natural state, it might have a compound cause, viz. the closure of the valves, and the motion of the blood, or the bruit musculaire.

The presumptions thus offered, that the valves were concerned in the production of the sounds, required corroboration by experimental and pathological evidence. Not having succeeded in satisfactorily imitating the second sound by injecting fluids retrograde into the aorta, I tried the expansion of membranes under water, and found that three inches of fine tape, two lines broad, held to the end of a stethoscope, and gently jerked under water, imitated the second sound, both the sounds in dilatation, and the double sound of the fætal heart, to perfection. Hence it was more than probable that the sudden expansion of membranes so small as the sigmoid valves was sufficient to produce such a sound as the second.

It was not easy to meet with satisfactory pathological cases on this subject; as, to be conclusive, great disease of the valves on both sides of the heart simultaneously, seemed to be required. Case 18, page 580, was one of this kind; the mitral aperture being about a quarter of an inch, and the tricuspid half an inch in diameter; yet the second sound, though weak, was perfect and without a murmur. Now, had this sound been occasioned merely by the influx of the blood, or any other cause than the sigmoid valves,

surely it would have been attended with a murmur.

R. S., Esq., whom I saw in consultation with Dr. Armstrong, had a prolonged bellows murmur over the sigmoid valves instead of the second sound. On examination, the orifice of the ossified and dilated aorta was found so much enlarged that the valves probably did not close it: hence a murmur from regurgitation. which extinguished the second sound. But why, it will be said, was the sound not produced by the pulmonic valves? True; therefore I did not consider the case conclusive. I have elaborate notes of three other similar cases; but as the patients are living the evidence is still less conclusive. I have, however, notes of the case of Thomas Wood, in the St. Mary-le-bone Infirmary, October 21, 1833, made by myself and by Mr. Hutchinson, late resident surgeon to the institution, separately, attesting that a murmur from regurgitation through the mitral valve completely drowned the first sound in the vicinity of the valve. Whence it might be inferred that a murmur in one set of sigmoid valves might possibly drown the natural sound of the other set.

On the whole, therefore, the presumptions were exceedingly strong in favour of the second sound being produced by the sigmoid valves; and the evidence on the first sound, more fully explained in the sequel, led me to establish the following presumptions; viz., that the first sound was compound, consisting, 1. Of the valvular flap; 2. Of an augmentation of this, either from bruit musculaire, or the motion of the fluid, or both*; 3. Of the prolongation of the sound by bruit musculaire, or the motion of the blood.

These presumptions required to be proved. After much reflection, a mode of experimenting on the ass occurred to me, which, if practicable, would inevitably, I thought, prove conclusive; namely, after denuding the heart in the manner described at page 22, to work out the following propositions:

1. Is the second sound loudest over the sigmoids, and is it so near as to seem produced immediately under the stethoscope?

2. Is the first sound loudest over the two auricular valves respectively; and is it so near as to seem produced immediately under the stethoscope?

3. Place the origins of the aorta and pulmonary artery between the finger and thumb; apply the stethoscope on the heart near the sigmoids; instantly after the systole, close the arteries, so as to prevent the reflux of the blood and consequent expansion of the valves, and see whether this annihilates the second sound.

4. Relax the fingers during the interval of repose, and see whether this reproduces the second sound at its wrong interval.

5. Push the knuckle, or the auricle, into each auriculo-ventricular orifice, so as to prevent the expansion of the valves, and see whether this annihilates the first sound.

6. Introduce a bent needle into the aorta, and hold open one or more of the semilunar valves, so as to permit free regurgitation. Notice whether this occasions a murmur with the second sound. The pressure of the aortic system being thus thrown on the ventricle, will it close the mitral valves? See whether this annihilates the first sound on that side.

To pave the way for the experiments on the ass, I first, assisted by Mr. H. J. Johnson, made trial on a rabbit, poisoned with woor-Though the heart acted vigorously for an hour, and we could perfectly hear both sounds by applying the small end of a thin stethoscope, the organ was too diminutive, and its movements too quick, to admit of our appreciating modifications of the sounds. I then proceeded to a trial on the ass, at Mr. Field's, Nov. 3, 1834, and, as on former occasions, put a copy of the above propositions into the hands of the friends invited (Drs. Davies and Williams, Mr. Johnson and Mr. Field). From an accident, the operation failed, the action of the heart being nearly suspended by the time the organ was exposed. The valves, indeed, were hooked back and the sounds heard, but with unsatisfactory results. I made

[·] It will presently be seen that another cause, the sound of muscular extension, was the principal source of this augment.

arrangements to renew the experiments immediately; but, from unforeseen and unavoidable causes, they were delayed till the ensuing February, when Dr. Williams and myself resumed them conjointly. Woorara was employed, and the heart, when denuded, beat with vigour and regularity about 60 or 70 per minute, and continued so to beat for an hour—affording ample leisure for making the following observations, which answer to the above propositions:—

Series I.*

1. The first sound was perfectly loud and distinct; and it was louder on the body of the ventricles than over the semilunar valves.

2. The second sound was subdued, and heard with some difficulty: and it was more audible over the semilunar valves than at the other parts of the heart, being sometimes distinct at the mouths of the arteries when inaudible on the body of the ventricles.

3. Pressure on the arterial orifices with the fingers or the stethoscope invariably stopped the second sound; and even slight pressure caused a whizzing or bellows murmur with the first sound.

4. The first sound was diminished, but not wholly suppressed, by pressing upon the ventricles with the end of the stethoscope (so as to curb or restrict their full contractile tension).

5. At each systole the sudden tension of the ventricles was such as to produce an *abrupt shock* to the finger placed on any part of them, with which shock the first sound exactly coincided.

6. The first sound was diminished, but not suspended, by thrusting the ends of the fingers into the auriculo-ventricular orifices; the ventricles contracting less, and irregularly (from the impeded influx of blood).

7. An incision being made into the left auricle, and the scalpel being passed into the ventricle, so as partially to destroy the mitral valve, and the blood being allowed freely to escape, the first sound continued to be heard with each contraction of the ventricle. See

8. The sound continued, though the right auricle was completely cut open.

9. And, finally, though the finger was introduced into the left ventricle, and was made by pressure to prevent the influx of blood into the right;

a. Its character, however, was not so clear and smart as when the ventricles contracted on their blood;

b. Thirty or more contractions, the majority very vigorous, took place after the incision had been made.

Series II*.

10. Before the pericardium was opened, both sounds were very distinctly heard.

 Present Drs. Williams and Arnott, and Messrs. Babington, Smyth, H. J. Johnson, Peregrine, Good.

† Present Drs. Williams and Macleod, and Messrs. Keate, Partridge, Malton, Goode, Seagrim, and others. The heart acted vigorously for an hour.

11. Both were also distinctly heard through the lung interposed between the heart and the end of the stethoscope.*

12. About two or three inches up the aorta from its origin, the second sound was heard, (but not the first,) alternating with the

impulse as felt on the ventricles.

13. The second sound was decidedly more distinct over the origins of the aorta and pulmonary artery than on the body of the ventricles; and, in that situation, it was louder than the first sound at the same point. It had exactly its natural short, clear, flapping character.

14. The aorta and pulmonary artery being compressed between the fingers, the first sound was accompanied with a loud murmur,

and the second was stopped.

15. A common dissecting hook being passed into the pulmonary artery, so as to prevent the closure of the semilunar valves, the second sound was impaired, and a hissing murmur accompanied it. A hook being passed into the aorta, so as to act in the same way on the aortic valves, the second sound entirely ceased, and was replaced by a prolonged hissing. (Heard by several.)

16. When the hooks were withdrawn, the second sound returned

and the hissing ceased.

17. Experiment 15 was repeated, and whilst Dr. Hope listened, the hook was first withdrawn by Dr. Williams from the aorta. Dr. Hope immediately said, "I hear the second sound."

18. Dr. Williams then removed that from the pulmonary artery; Dr. Hope said, "the second sound is stronger, and the murmur

has ceased." (Several listened to 16, 17, and 18.)

19. The arteries were cut open: the heart continuing to contract (about eight or ten times), the first sound only was obscurely audible.

Conclusions.

These experiments appear to warrant the following conclusions:

A. The first sound is loudest on the body of the ventricles (1).

B. The second sound is loudest over the sigmoid valves, and thence for a few inches along the aorta (2, 12, 13.)

C. Preventing the reaction of the blood on the sigmoid valves,

annihilates the second sound (3, 14.)

D. Creating regurgitation through the sigmoid valves occasions a murmur and extinguishes the second sound (15, 16, 17, 18.)

From the two last propositions it results that the closure of the

sigmoid valves is the cause of the second sound.

E. The jerk (impulse) felt on the ventricles is coincident with and occasioned by the closure of the auriculo-ventricular valves, by which a sudden resistance is offered to the ventricular contraction (5): under these circumstances the first sound is perfectly loud and distinct (1, 10.)

F. When the resistance of the valves is removed, and the jerk thus prevented, the first sound is dull and obscure, (7, 8, 9, 19,) like the muscular sound which may be imitated with the hand.

I made this observation to refute the contrary opinion held by M. Majendie.

The two last propositions seem to warrant the inference that the first sound is compound: viz. consisting, 1st, possibly of a degree of valvular sound; 2d, of a loud, smart sound produced by the abstract act of sudden jerking extension of the muscular walls, in the same way that such sound is produced by similar extension of the leather of a pair of bellows;—to avoid circumlocutions, I shall call this the sound of extension: 3d, a prolongation, and possibly an augmentation, of this sound by the sonorous vibrations peculiar to muscular fibre (bruit musculaire, muscular sound.)

These heads will severally require a few remarks. The valvular sound can only be spoken of as possible, because being synchronous with, and as it were incorporated in, the sound of extension, its existence is not demonstrable. The possibility may perhaps amount to a probability, on the principle that, if the sigmoid valves can produce sound, the same may, by analogy, be predicated of the

auriculo-ventricular valves.

The existence of the sound of extension appears to me to rest on strong grounds. The phenomena in No. 5 made a forcible impression on all present; and it was remarked that the sense of touch conveyed an identical idea with the sense of hearing. sound of the heart during palpitation is, in some instances, of such extraordinary intensity, that it would do violence to all analogy to suppose it produced solely by bruit musculaire; and some of the strongest advocates for this bruit have thought it necessary, in such cases, to imagine a sound produced extrinsically, by the heart impinging against the thoracic walls. This corroborates the opinion which I formerly expressed, (page 47,) founded upon, and subsequently confirmed by, every variety of experiment on muscular sound which I could devise. Nor can it be supposed, again, that the auriculo-ventricular valves alone could produce so loud a first sound as is sometimes heard; not to say that this sound is of a different character, being much more blunt than the loaded valvular click, taking that of the sigmoids as a type.

The bruit musculaire appears to constitute the prolongation of the first sound, this prolongation being of the same dull, rumbling character as ordinary muscular sound. Possibly it may add to the intensity of the first sound. Nor can it be affirmed that the motion of the blood does not also contribute to the sound, though there is no proof that it does. In the healthy human subject, when faint, the first sound is short and flapping, like the second. For this, bruit musculaire alone would not account, as languor would increase the characteristic dulness and obscurity of the bruit musculaire. The first sound during faintness, therefore, must proceed

from muscular extension, or from the valves, or from both.

Until the view now offered has passed the ordeal of professional scrutiny, it would be premature in me to venture upon alterations of the text to correspond with it: more especially as a most flattering reception in this country, and several foreign editions and trans-

lations, have given the present work a sanction which I am bound to respect. Now, as before, "I am anxious to offer my opinions, not as established facts, though I trust that they will be found grounded on careful observation, but simply as propositions to be admitted or rejected according to the test of general experience*." In the interim, the following brief remarks will afford a key to all the points in this volume, where the reader is to exercise his own judgment in applying the present view, or that previously offered, in explanations of the signs of disease. Happily, as Nature is immutable, the signs themselves are always the same, howsoever we explain them; but a correct explanation renders them more distinct and available.

Sounds in Hypertrophy (page 50).—As the ventricle, from its thickness, contracts slowly, the closure of the auricular valves is slower, is attended with a less jerk of extension of the ventricular walls, and the muscular sound (bruit musculaire) is weaker. Hence, the first sound is dull and stifled. The second sound is weaker because the diastole, no less than the systole, being performed more slowly, the reaction of the blood on the sigmoid valves is less smart.

Sounds in dilatation (page 52).—As the muscle, from being thin, contracts with increased velocity, the sound of muscular extension and of valvular closure is brief, loud, and clear; and it is not prolonged by bruit musculaire, or motion of the blood, apparently in consequence of the feebleness of the contraction. The second sound is increased from the diastole being quicker.

Hypertrophy with dilatation (page 53).—The first sound is increased, sometimes exceedingly, in consequence of the violence and velocity of the muscular extension and valvular closure: the sound is also prolonged by bruit musculaire, &c. The second sound is increased from the diastole being quick, but still more perhaps from the preternatural quantity of blood injected into the arteries increasing their tension, and consequently their reaction on the sigmoid valves.

Disease of the valves (page 55).—Murmur with, or instead of the second sound over the sigmoid valves, indicates regurgitation, either from disease of the valves or from their being too small to close the orifice.

ON THE REDUCTION OF STRANGULATED HERNIA.

A memoir upon this subject by Dr. Herpin, read before the Medical Society of the Canton of Geneva, January 11, 1832, has been printed in the Gazette Médicale of May 16, 1835. The author remarks, that until the beginning of the nineteenth century the progress of surgery consisted chiefly of the improvement of operations. Of late years, however, much has been done to save patients from the knife, and many white swellings, diseases of the

breast, affections of the testis, &c. which would have been operated upon twenty years ago, are now cured by active medical treatment.

Among the diseases which appear exclusively to belong to the domain of surgery, but to which medical treatment is applicable, we must reckon strangulated hernia; and it is the object of this essay to show that the operation for its relief is too often practised. The treatment recommended by the old masters of the art, before recourse is to be had to cutting instruments, is very insignificant; and even in our own days the most eminent surgeons, though they recommend more therapeutical means, recommend them without confidence, and practically trust only to the operation. Herpin, after quoting Boyer's opinions on this point, (Traité des Maladies Chirurgicales, tom. ix. p. 90, 91.) remarks that if we wish to know Dupuytren's, independently of his clinical lectures, we may find them in the additions to the Médecine operatoire of Sabatier in the edition published under his auspices by his pupils MM. Begin and Sanson. The authors after enumerating the different remedies advised against strangulated hernia, but which they consider applicable rather to incarceration than to inflammatory strangulation, namely, purgatives in repeated doses, tobacco clysters, resolvent or astringent topical remedies, and ice, proceed as follows: "General bleedings, the repeated application of leeches to the part, baths, emollient poultices, and abstinence from food and drink, bring the parts into a condition more favourable to This operation may then be attempted with much less inconvenience to the parts, and much greater chance of success. Nevertheless, as these means are far from infallible, and time is precious, antiphlogistics must be employed in general with a sort of mistrust, and the taxis with much reserve, and if the symptoms either are or become at all alarming, we must have recourse to those means which directly destroy their cause, and perform the operation."

Thus we see that the treatment which is to prevent the necessity of the operation is always represented as but little likely to be successful, and we are instructed to operate as soon as possible. The practice at the Hôtel Dieu, when our author attended there in 1820, was entirely in accordance with these precepts; reductions of hernia by the taxis were very rare; the pupils sometimes made the attempt before the arrival of the Professor, but he operated immediately. It is true that the majority of the patients did not arrive at the Hôtel Dieu immediately after the appearance of the symptoms, and must have undergone some attempts at reduction before; but had these always been sufficient, methodic, and preceded by proper treatment? It may be permitted to doubt this, and the want of success ought not to have prevented another trial. However this may be, every hernia, with very few exceptions, was operated upon without continued attempts at reduction. In many instances it was not even tried. I might quote many cases, says Dr. Herpin, in proof of these assertions, but they would be almost

always a repetition of the same thing. I shall content myself with

one instance, copied word for word from my notes.

"Melon (Germain), aged 18, was admitted into the Hôtel-Dieu on the 26th of February, 1820, and was placed in St. Bernard's ward, No. 57. When seen in the evening, he was found to have a hernia, which had been strangulated for twenty-four hours. Unsuccessful attempts at reduction had been made out of the hospital; the tumour was hard, painful, and formed a knuckle (bourrelet) beyond the ring. Without attempting reduction, M. Dupuytren immediately decided upon operating. After the incision of the integuments and other superficial structures, the operator," &c.

The remainder, says Dr. Herpin, does not concern our present purpose. The operation succeeded, and in six weeks the patient went out cured, having experienced but trifling symptoms during

his recovery.

Imbued with the lectures which he had heard, and the examples that he had seen, our author, when he began practice, thought that he should be obliged to operate in the majority of the cases of hernia that came under his care. The fact, however, has been

quite different.

From 1824 to January, 1832, Dr. Herpin treated seventeen cases of strangulated hernia. These seventeen cases occurred in only eleven individuals; for one patient had three, and another five. These were women who worked very hard, and said that they could not bear the strong trusses ordered them. Of the eleven patients, six were females, and five males; their ages were as follows:

1 was 19, 2 were from 30 to 40, 1 from 40 to 50, 5 from 50 to 60, 2 from 60 to 70.

Total, 11.

Among the women, all the herniæ were crural; among the men, all were inguinal, with one exception.

Of the seventeen herniæ, sixteen were really strangulated; one

alone was merely incarcerated.

Treatment. In three cases the taxis alone, employed immediately, and with some perseverance, succeeded. In the case of the hernia incarcerated, the taxis was preceded by resolvent applications. In twelve cases reduction was effected by means of the bath, employed after the application of leeches, which was sometimes preceded by bleeding. In one case alone, (which was the fourth that occurred in Dr. Herpin's practice,) the operation was necessary. The patient was a peasant, aged about forty, who had fallen ill at an inn; the strangulation had lasted sixty hours: it was a crural hernia, small, and very painful. A bleeding, a bath, and

leeches, having been employed to facilitate the taxis, but without success, our author operated, with the assistance of M. Senno, seventy-two hours after the occurrence of strangulation. The

recovery was very rapid.

Subtracting, then, the incarcerated hernia, and the three cases where the taxis succeeded immediately, there remains but one operation, performed among thirteen herniæ, that were indubitably strangulated: yet, at the time of reduction, the strangulation had lasted various periods, up to forty-eight hours. Here is a case at length.

Tranchant, a married woman, aged about sixty-five, of a lymphatic temperament, small stature, decrepid and lame, and living in extreme indigence, had had a crural hernia for about ten years: it had been produced by a kick upon the abdomen. She did not wear a truss, but the hernia always went up with facility.

On the 5th of October, 1824, at eight in the evening, she carried a heavy saucepan to the fire, and, on going to bed two hours afterwards, she found that the hernia had come down, and tried in vain to reduce it: her husband also made useless attempts, with the same purpose. She soon had pains in the abdomen at intervals, and vomited. The pains continued on the 6th and 7th, and she vomited whenever she drank.

Our author was called in on the 7th, at one P.M., and found a crural hernia, as big as a pigeon's egg; its transverse diameter being the greatest. The tumour was smooth, hard, and not very painful on pressure; there were abdominal pains and vomiting, as on the preceding day, with thirst, a dry tongue, hot and dry skin, and a small, frequent, and rather hard pulse. Our author having endeavoured, but in vain, to reduce the hernia, ordered twenty leeches to be applied to the tumour, and infusion of mallow to be taken for drink.

At ten in the evening, the leech-bites had bled freely, and were still running a little. The abdominal pains had been much augmented by Dr. Herpin's attempts; the tumour was harder, and there were vomitings. The patient was put into a bath which had been got ready for her, and, having remained in it for forty minutes, felt very much indisposed, when the author renewed the taxis: at the end of a few minutes he heard a gurgling, and almost immediately afterwards the hernia was reduced. The strangulation had lasted more than forty-eight hours.

On the 8th, the patient had passed a liquid stool very soon after the reduction, and the pains had completely ceased: the hernia had come down during the night, in spite of the compresses and the spica bandage round the groin, (which Dr. Herpin had applied temporarily,) but it returned immediately. There was no vomiting; the thirst was less, the tongue moist; no appetite. Ricewater and low diet were prescribed. On the 13th, the patient had recovered perfectly.

This was the second case of strangulated hernia occurring in

Dr. Herpin's practice, and his success in treating it made him from that time persevere, much more than authors recommend, in attempts at reduction. He has always had reason to congratulate himself upon it, though he has sometimes met with such difficulties that he has no hesitation in believing that the majority of the patients, whom he has cured without operation, would have undergone one in the hands of practitioners much more skilful than himself.

The preceding case shows the treatment which he employs, which, however, he gives more at length, as follows; observing that it contains nothing new, excepting perhaps the combination of the remedies, and the time which is chosen for reduction.

Immediately after his arrival, the patient being properly placed, with the pelvis higher than the remainder of the trunk, the thighs bent, &c., Dr. Herpin tries the taxis. If the resistance is too great, he bleeds or not, according to the constitution of the indi dual; but he always orders leeches to be applied to the tumour, and The bath is generally ready the moment that the leeches fall off, in which case the patient is immediately to be put into it: if not, a poultice is applied to the leechbites during the interval. While the patient is in the bath, the clots are to be occasionally removed from the bites, and the blood generally flows with ease. The patient is left in the bath until he feels the uneasiness which precedes fainting: this almost always happens before he has been in the bath an hour. The taxis is now tried again: sometimes it succeeds immediately, sometimes the attempts are continued for half an hour, or even more, allowing the patient to repose from time to time. Dr. Herpin occasionally uses a good deal of force, and is not stopped by the painful state of the tumour; and, as already mentioned, this practice has been crowned with success twelve times out of sixteen. The patient does not faint, because the pain is sufficiently stimulating, but still there is a state of weakness which remarkably facilitates the reduction.

Thus, instead of bleeding to syncope, as Boyer advises, which it is not always easy to do, and which moreover would cause a much more lasting debility, the author employs the bath and evacuation of blood, with the same end in view; and, then, instead of taking the patient out of the bath, as Boyer recommends, he tries the taxis while the patient is in the bath. This is perhaps rather more troublesome to the surgeon, but infinitely better for the patient; for, while he is getting out of the bath, and being dried and shifted,

the favourable moment is lost.

The author again observes that he uses a good deal of force when attempting the taxis in the bath; and quotes a case which has contributed not a little to make him persevere in his attempts at reduction. He was called into the country, some years ago, by one of his colleagues, to see a middle-aged farmer labouring under strangulated hernia. The operation seemed the only resource, and they took the necessary instruments with them. The

strangulation had lasted about thirty-six hours. Bleedings, leeches, baths, and poultices had been employed in vain, from the preceding day to the evening; the tumour occupied the scrotum, and was large, hard, and painful. We both tried the taxis, says the author, without success (the patient being in bed) and then retired to consult together, having hinted to the patient that an operation would probably be necessary. The result of our conference was that it was requisite to operate instantly. Just as we were going in to tell the patient what we had resolved upon, he cried out that the rupture had gone up, and so it really had. Crever pour crever, said he, I squeezed it between my hands as hard as I could, (he was a strong man,) and it went up. The patient got well without a bad symptom.

The woman whose case was given above, was the patient whose recovery was the slowest, though she was perfectly convalescent five days afterwards; but she was indigent, and of a very bad habit of body, the strangulation had lasted more than forty-eight hours, and the subsequent diarrhæa alone kept her two or three days in bed. In the greater number of cases Dr. Herpin was not able to keep the patients from resuming their ordinary occupations on the following day.

What are we to think now, asks the author, of the advice which is given us to discontinue the taxis when the tumour becomes painful, to employ antiphlogistics with a kind of mistrust, and the taxis with much reserve? Nay, we are told that an immediate operation is generally to be preferred to prolonged attempts at reduction. I have allowed facts to speak for themselves, and leave others to decide if the authors referred to do not go too far,

We are not to conclude, however, that the operation may be put off to an indefinite period; the following is Dr. Herpin's summary of his opinions on this point.

1. That neither previous attempts at reduction, nor twenty-four, thirty-six, or forty-eight hours of strangulation, nor even the painful state of the tumour, contra-indicate the persevering use of the taxis, provided the patient is placed in the circumstances already pointed out; for even if it were necessary to operate immediately afterwards, these circumstances are a good preparation for the operation.

2. That independently of the pain of the operation, and five or six weeks of treatment, if we follow the ordinary theory and practice, we are sure to sacrifice a certain number of patients who are carried off by peritonitis.

3. That the treatment above described is the most calculated to obtain reduction.

There is an additional precaution which Dr. Herpin has sometimes found very useful in the taxis. When the tumour is tense, and very hard, he squeezes it for some time between the fingers of both hands, before endeavouring to return it; this compression must be gentle at first and gradually augmented. The tumour is almost always immediately softened, either from the pressure unloading the tissues, or from the return of a small quantity of gas.

HISTORY OF A UNIQUE CASE OF HEART DISEASE.

By Samuel Hanna, A.M., M.B., one of the Physicians of the Sick Poor Institution.

Although I am fully aware of the general inutility of recording individual cases, except where by serving as types or models of a class they tend to direct our practice, yet I am induced to offer the following case, (which I met with several years since,) by reason of its singularity; as in the course of my subsequent experience I have happened on nothing approaching to it, nor on consulting a variety of authors, who treat expressly on diseases of the heart, have I been able to find any lesion similar, much less identical.

J. B., æt. 31, possessed of extraordinary bodily strength and activity, and of a restless, enterprising character; had been in the habit of living freely. He had met with several severe falls from horseback, having been formerly riding master to a dragoon regiment, and latterly being engaged in training horses. He, however, always enjoyed good health till the present attack; its origin he states, as follows:—On 25th of last August, he received a severefall on his back from a horse, but found no immediate bad effects from it; however, in a couple of days he experienced a sudden beating at the heart, along with sickness; for this he took an emetic. (which aggravated the symptoms,) and from this period he has been subject to continual palpitations. A short time after, he heard something crack loudly to the left of the middle of the sternum, and there immediately succeeded in the same spot a burning pain, shooting occasionally under the scapula and down along the arm; this pain continued for a considerable time, but has since ceased during the use of digitalis. Sometime afterward, whilst hunting, he was suddenly seized with palpitations so severe as to induce fainting; this was relieved by a bleeding from the arm. He has spat blood. Such is the history of his case, as he detailed it to me. When I saw him he was much emaciated and enfeebled; the usual symptoms of heart complaint were present; dyspnæa on motion, especially up ascents, orthopnœa, palpitations, dreams, and startings, cough, &c. Pulse rather small, but regular. The signs furnished by the stethoscope were-Between the second and third ribs, near the sternum, is heard a loud whirring rush of a fluid along with a double beat; this is audible through the whole region of the heart, but is much loudest at the above point; and the finger applied here perceives a very marked thrill, ("frémissement cataire"). The force of impulsion at this point is various, sometimes much exceeding what is natural; and this not depending on palpitations. Percussion here returns a clear sound. I bled him, and put him on digitalis, hyoscyamus, &c. This occurred in the month of January. During the following month of February, the disease continued to make progress; the ædema of ankles increased,

though it never was excessive; and the anguish from the feeling of suffocation became intolerable.

On the 1st of March, following the advice of a friend, he took some opium, (though from having witnessed, in two or three cases of heart disease, death notably hastened by its use, I had warned him against it;) when I visited him that evening, he said he was quite easy and happy; but he was then evidently under the delusive influence of the opiate. On calling the following day, I learned that shortly after my leaving him the preceding evening, he was seized with a fit of suffocation, and after ten minutes severe agony, had expired.—The following day I proceeded to make the examination of the body, but as several of the friends were present, the heart was the only organ I could inspect, and this too, hurriedly, as they were anxious to dispatch the funeral. The pericardium contained about a naggin, or a little more, of clear serum; the portion of it lining the heart was in parts dotted with red, and had here and there on its surface shreds of false membrane. The heart itself was two to three times its proper size. On making an incision from the origin of the aorta along the left ventricle toward the apex, I opened into a cavity, which I at first conceived to be that of the ventricle, but soon finding my mistake, and expressing my surprise at the appearance, I was permitted by the friends to remove the heart for further inspection. On returning home, I proceeded to examine the cavity: it might contain a small orange, and was formed in the external paries of the left ventricle; it was separated from the cavity of the ventricles by what seemed the inner coat, transformed into a thick fibrous membrane, while in the outer wall, the muscular texture of the ventricle was quite effaced, as if by the effect of compression; it was lined with shreds of coagulable lymph of various thickness, which easily peeled off. Just at the summit is seen a small, round, smooth opening, about two lines in diameter, leading at once into one of the sinuses of the aortic valve, and situated about four lines below the mouth of the coronary artery.

All the valves of the heart and of its vessels were sound; the aorta was of natural dimensions, and otherwise healthy, except in a diffuse partial redness in a small space of its inner coat, which, however, disappeared after twenty-four hours' maceration. On the surface of the interventricular paries of the fifth ventricle, is an exactly circular patch of a white colour, about the size of a shilling; this is formed by a softish layer of a plastic lymph, and is united only at its circumference to the lining membrane of the ventricle: corresponding to this patch the lining membrane has a shallow depression, and is more vascular than natural, shewing evident marks of inflammation.

On reading the preceding case, the question naturally arises as to the nature of the affection. It appears to me, to be an aneurism of the aorta developed in a most unusual situation; indeed on the whole, a lesion to which, after consulting a variety of authors, I

can find no precise parallel. The only question can be between this view of the matter, and an abscess in the substance of the left ventricle. Of this latter affection, there are not wanting several instances, but so imperfectly described, as to give little help in elucidating the question. Morgagni quotes three or four examples from the Sepulcretum of Bonetus; but on reference to that work, these will be found to be little more than mere statements of the existence of abscesses, without any anatomical detail. His object in quoting these cases, was only to ascertain, whether syncopes and intermissions of pulse were necessary symptoms of this affection, (a question by the way which he decides in the negative). Now, not to mention that abscesses, situated in the heart, are rather infiltrations of pus among the muscular fibres, it would be hard to conceive such a cavity left completely empty of pus, except we are to regard it as the consequence of the softening down and subsequent removal of a large tubercle, for these have not unfrequently been found in the heart's substance. But every thing in the history of the case, as well as in the constitution of the individual, disproves such an opinion; as he was of an eminently robust habit, and the attack was sudden, bearing in it all the characters of an acute inflammation. I may here also refer to the authority of Andral, who states, that he never found tubercles in the heart, except they existed at the same time in other parts of the body. In the case under consideration, there was no symptom of such, and the lungs, superficially examined, shewed no sign of their presence.

The heart is deposited in the museum of the Park-street School.

ON THE TRICUSPID VALVE, OR SAFETY-VALVE.

A paper was lately read before the Royal Society, "On the Reflux of the Blood through the Right Auriculo-ventricular Aperture of the Human Heart," by T. W. King, Esq.; which was communicated by Thomas Bell, Esq. f.R.s. The author of this paper shows, as the result of the anatomical arrangement of the valves of the heart, that, whilst the mitral valve is true and powerful in its valvular function, the tricuspid valve performs the office both of a valve and of a safety-valve, as occasion requires: that is, it is either nicely closed against all reflux, or it is widely open, expressly to admit a free regurgitation, under different circumstances.

Pathologists have long known that dilatation of the ventricle so deranges the attachments of the mitral and tricuspid curtains as to produce an imperfect valvular action; and it has been more or less allowed that the action of the right side of the heart is less perfect and forcible than that of the left. It appears, however, that the loose thin wall of the right ventricle has so much of the tricuspid curtain attached to it, that all degrees of congestion, even in health, tend to diminish the nice adjustment of the naturally feeble valve. In the common congestion of death, the valve, when set in action by experiment, presented an aperture of reflux nearly equal in area to the tube of the pulmonary artery. It appears, also, that the tricuspid is only a true valve when the ven-

tricle is nearly in a maximum state of contraction.

Independently of the anatomical explanation of this new function, the proof rests upon a simple experiment which has been performed in various ways upon living and dead hearts: it consists in this: The heart being removed from the body, and the great arteries divided a short distance from their origin, the sigmoid or semilunar valves of both are to be destroyed, and injection-pipes are to be inserted, so that the ventricles may be injected. The auricles are next to be fully removed, in order to expose the valves; and now, upon injecting the ventricles in succession, from the aorta and pulmonary artery, it will be found that the mitral curtains always close perfectly and powerfully; but, on the contrary, the tricuspid do not close in any degree accurately under common circumstances.

It seems that the more the right ventricle has been distended in death, the greater is the reflux, and vice versa; that, in living animals of various kinds, the least fulness of the cavity produced by the injection of warm water, gives a copious refluent stream, and that the living hearts of men, and many mammalia, if allowed fairly to contract after death, are then found to possess a true valvular action in the right ventricle. Thus, it is shown that, in proportion as the right ventricle is distended, whether by impediment towards the lungs or general venous fulness, this safety-valve operation prevents the undue propulsion of blood to the lungs, whilst the auricle and veins act as reservoirs, until the left side of the heart and lungs can gradually dispose of the increased mass of fluid, when, finally, the right ventricle is unable to adapt its dimensions to the reduced contents, and the more perfect valvular office comes into operation.

The author states that, in fœtal life, the solidity of the right ventricle both maintains and needs a more perfect valve; but that, after birth, when the nutrition and movements at length become irregular, and sometimes violent, the safety-valve action becomes superadded upon the wasted ventricle. He advances the probability that males have a fuller safety-valve action than females; and he also shows that it is likely, from the various forms of the tricuspid valve in different animals, that the several orders of the class mammalia have each more or less safety-valve action.

The anatomical descriptions of these parts were facilitated by drawings; and the characters of the heart at different ages, and of the organ in different animals, as well as the circumstances of disease which involve the safety-valve function, were distinctly noticed.

ST. GEORGE'S HOSPITAL.

Fractured Pelvis; Hemorrhage; Suppuration within the Pelvis.

CHARLES WHITE, aged seventeen, was admitted, January 13th. under the care of Mr. Cæsar Hawkins, having just before been knocked down upon his face by a horse; a loaded dung-cart having then passed over the back of the pelvis. On his first admission, he appeared to be dying of internal hemorrhage, with much pain and distention of the abdomen: it was thought, however, that the bleeding was probably external to the peritoneum within the pelvis, as the pain and swelling were chiefly at the lower part of the abdomen. No blood, however, appeared externally, except on the back of the nates, which were much contused. In a few hours, however, he recovered from the hemorrhagic collapse, though still complaining of much pain. He had made water an hour before the accident, and was unable to make water himself, on account of a rupture in the urethra. A gum-elastic catheter was in the evening passed with some difficulty into the bladder, through the lacerated part, in which there seemed to be a good deal of coagulum; and it was fastened in the bladder, the water in which was quite clear, and free from blood.

Jan. 14th. Seems comfortable, except from pain in the lower part of the abdomen, which was hard and tense, as if from blood in the muscles. Pulse frequent and sharp, as if from hemorrhage; bowels confined.—R. Cal: gr. iij.; Jalapæ, gr. xvi. M. statim

sumend.

15th. Tolerably comfortable: skin rather hot; less tendern ss and pain. -R. Haust. Salin. 3iss.; Magnes. Sulph. 3ss. M. teis horis sumend.

Examination of the pelvis gave the sensation of obscure crepitus, as if of cartilaginous surfaces rubbing against each other in the right iliac synchondrosis, and a sensation of crepitus was also perceptible in the front of the pubes near the lacerated part of the urethra. Motion, especially of the right leg, gave him also very

great pain.

16th. He last night began to complain of more pain in the abdomen, and to-day has much tenderness and pain above the pubis: this continues to-day, and he has an expression of much anxiety of countenance, with a small thready pulse, at 116, and fever: bowels open. Mr. Hawkins believed that there was inflammation of the lower part of the peritoneum, and directed him to be bled, which was done to ten ounces. This gave him much relief, and the pulse became fuller and stronger, the blood being much buffed and cupped.

The water now containing some mucus from the bladder, Mr. Hawkins withdrew the catheter, and found it incrusted with phosphates. A new one was then passed in, and the bladder was injected with warm water once a day; from which he experienced

much benefit, and the urine became again clear.

Vespere. Pain continues, though less.—Hirud. abdomini.—

R. Hydr. Submur. gr. ij.; Opii, gr. ith. M. fiat pil. quartis horis sumenda.

17th. Seems a good deal better, but the pulse has still some sharpness, and the pain is not gone.—V.S. ad 3viij. Blood cup-

ped and buffed, though less. Cont. pil.

18th. All expression and anxiety gone; much less pain and tenderness. Catheter again changed, and found slightly incrusted with phosphate of lime; a little mucus having also again been secreted in the urine.—Cont. pil. 8vis horis.

19th. Omit. pil. Beef-tea, half a pint.

21st. Still going on well, and free from pain. - Fish diet.

22d. Does not seem so well, being weak and nervous, and losing his appetite, though not complaining when not moved. A good deal of fætid bloody pus coming away by the side of the catheter, and no difficulty being experienced in making water when this was tried, the catheter was withdrawn, and he was allowed to make water, so that the pus was not confined, and no irritation excited in the bladder, of which he made much complaint. Bowels somewhat purged, and the evacuations fætid and dark. Took castor-oil yesterday.—R. Calomel, gr. iij.; Opii, gr. ss. M.

statim .- R. Haust. Rhei, 3 j. post hor. iij.

23d. Same symptoms, but increased; restless and anxious; unable to take any food; complains of much pain in the abdomen and perineum, in which last situation no swelling could be perceived; much bloody purulent fluid coming away by the urethra and by the catheter, the point of which entered a cavity communicating with the perineum, though not appearing externally, so that Mr. Hawkins believed that suppuration had taken place on the inside of the pelvis where the blood had been extravasated, probably about the period when the peritonitis had come on. He therefore passed a catheter with some difficulty into the bladder, the water in which was still quite clear, and made a large incision in the perineum, the cavity in which was not large; but an opening was found on the right side, going into the interior of the pelvis, which was enlarged by the knife, and a large quantity of the same putrid bloody pus was let out. The finger, passed into the pelvis through the opening, detected an extensive fracture across the thyroid foramen, on the right side, the broken portions being partly loose, and extensively deprived of periosteum, in the cavity from which the fluid had been evacuated.

Wine, arrowroot, &c. were given, but the prostration of strength went on increasing; the next day he had much vomiting, and died

in the evening of the 24th.

Examination of the body. Peritonitis only at the lower part of the abdomen, where the sigmoid flexture of the colon, the omentum, and part of the small intestine, were firmly adherent to the peritoneum lining the parietes, and covering the bladder; and the bowel at this part was very soft, and easily lacerated. A large quantity of blood was extravasated on the outside of the peritoneum, chiefly around the pelvis and back of the abdomen, the peritoneum being

every where raised and separated from the adjacent parts, the blood having even made its way along the mesentery to the coats of the intestines, and extending in the same way into the rectum and colon. The bladder was contracted and small, though uninjured, in the midst of a mass of coagulum above an inch thick, between the peritoneal and muscular coats, and nearly as much in front. The blood had also been driven a little into the substance of the iliac and psoæ muscles on both sides, and someway up the anterior parietes of the abdomen, chiefly, however, between the peritoneum and transversalis. There was very little blood in the adductor muscles of either side, and very little in the perineum, so that, although the source of the bleeding could not be ascertained, it did not appear at all likely to have been effused from the ruptured urethra, but from some of the vessels of the interior of the pelvis injured by the fractured bones.

The laceration of the urethra had taken place just under the symphysis, and was probably occasioned by the fracture of the left

side.

The front of the pelvis, between the bladder and innominata, and deep in the pelvis, was occupied by a large cavity in a sloughy state, which reached up also some little way on the front of the abdomen. The suppuration had not extended, however, to the blood on the posterior part of the bladder, or among the intestines. In this cavity much of the fractured bones on the right side lay nearly loose and dead, so that the adductor muscles formed the boundary of the abscess. The right os innominatum was broken into several portions through the thyroid foramen, the transverse ramus of the pubes being separated at the symphysis, and loose and dead from the line of fracture. The ascending branch of the ischium was broken separately, nearly down to the tuberosity. The left innominatum was broken across the thyroid foramen in the same way, though to a less extent, and none of it seemed deprived of periosteum by the sloughing abscess. The ilium was separated from the sacrum at the synchondrosis on both sides, where a little blood had also been effused, but evidently from small vessels only, quite distinct from the great extravasation. On the left side a small portion of the sacrum had been broken off at the joint .- Med. Gazette.

MISCELLANEOUS.

IMAGINARY NEW EDITIONS.

An honest reviewer is sometimes tempted to say of the book he is noticing, "This is really a new edition;" a phrase which we will explain in all its bearings for the benefit of innocent country readers, who must be as much surprised when they hear of spurious second editions, as when they are told of our porter medicated with morphia and strychnine, or our bread rich in sulphate of alumina and phosphate of lime.

Second editions may be conveniently divided into three classes.

First, in the genuine second edition the sheets of the former one are not made use of; the types having been distributed, are again set up; and the author, making use of his opportunities, not only corrects false prints, bad grammar, misty sentences and loose theories, but endeavours in every page to raise his book to a level with the knowledge of his time. This is the second edition

of the golden age.

Secondly, we have the quasi second edition. In this product of human frailty the sheets of the former impression are used, but a supplement is added; or perhaps a few leaves are cancelled, and new ones inserted in order to correct some very glaring errors. Such an edition belongs to the silver age; it is unsatisfactory to the reader who hopes, but in vain, that the information contained in the book will be brought up to the year, which is printed on the title-page.

Thirdly, we see the spurious second edition, which differs from the first in its title-page, and perhaps in its preface, but is otherwise the same; thanks to the superabundant chlorine of the paperbleachers, it is often betrayed by its chlorotic complexion, for our modern paper loses its colour, or rather gains one, in the space of a few years. This knavish attempt to save good for nothing books from their natural destiny belongs to the present time, the

age of iron, or of brass.

These things being so, it is passing strange that some critics should say that the words fourth edition or fifth edition on the title-page save the necessity of examination, and speak volumes for the book. Are they unable to detect the most flagrant impositions, or, in the spirit of Pope's universal prayer, do they hide the fault they see? Would it not be still more strange if a writer on any branch of physic, in order to excuse the identity of his editions, were to tell us that ten or more years had passed away since his last edition, but that he had no improvements to make?

Who would not laugh, if such a man there be, Who would not weep, if Atticus were he?

The detection of these pseudo-second editions is easily effected by a typographical test. If we find that the errata of the first edition, even those of the most glaring kind, occur in the second, each constant to its place, we may be sure that this is not the effect of accident: when the throws can be named beforehand, the dice are loaded.

This assumption of honours in the republic of letters by puny whipsters, who have no claim to them seems to us a weighty misdemeanour, and one which should be punished by public exposure in several conspicuous reviews.

Aristarchus.

THE RAPIDITY OF THOUGHT.

All popular and settled notions, however unfounded, like prejudices early imbibed, are with difficulty eradicated. Among these may be instanced the dictum of the astonishing rapidity of Thought,

which is almost proverbial, and generally believed: even Mr. Tooke, Vol. I., p. 28, conforms to this established maxim. "Words have been called winged: and they well deserve that name, when their abbreviations are compared with the progress which speech could make without these inventions; but when compared with the rapidity of thought, they have not the smallest claim to that title." By calculation, the progress of light from the sun and other luminaries is said to be ascertained; and likewise the rate at which sound travels: but hitherto no contrivance has been fabricated to estimate the rapidity of thought. If the succession of our thoughts should be more rapid than they can be distinctly apprehended, confusion must ensue, and their rapidity would render them useless. Our preceptions are regulated by the same law. If the prismatic colours be painted on a surface which is revolved with great rapidity, the individual colours will not be apparent. The succession of sounds to a definite number, may be severally distinguished, in a certain interval: but if the succession be increased beyond the power of discrimination, they will impress the ear as one uniform The same principle must regulate our thoughts, whether they be composed of Ideas or words, or, if it be possible, of both jumbled together. It does not appear that our thoughts for any useful purpose, which must imply their communication to others, or for a record in written characters, can be more rapid than the intelligible pronunciation of the words themselves, and which, when delivered in quick succession, leave the shorthand-writer behind.*

Dr. Haslam on Thought.

[We side with the people, and Horne Tooke. It is obvious that besides the two useful purposes of thought allowed by the author, there is a third, of which almost every one is conscious. This is effected when the mind is employed in skimming over familiar ideas to arrive at some new master-thought. Excited by unexpected combinations, or soothed into a delicious reverie, the happy thinker could no more give an account in writing of each idea, than one who gazes on a stream could give an account of each particle of water that flows before him. Ed. Med. Quart.]

INQUEST AT DUBLIN.

An accurate Report of a curious Inquest and unparalled Case which occurred on Wednesday, the 1st of April, 1835. Such is the title of a pamphlet of fifteen pages published at Dublin, the substance of which may be given in a few words. Mr. Hayden, a surgeon, having been called in to a case of lingering labour found it necessary to open the head of the child; a coroner's inquest was held upon the body, and the following verdict returned:

^{*} It is very probable that Martial, in his eulogy of the Roman Notarius may have exceeded the actual performance.

[&]quot;Currant verba licet, manus est velocior illis:
Nondum lingua suum, dextra peregit opus." Lib. 14, Epig. 208.

"We find, that the Child, in relation to which our inquiry has been held, was in all probability dead before the operation was performed by Surgeon Hayden; and we further find, that even if the fact were otherwise, then, that the operation performed by Surgeon Hayden, was both well-judged and well-executed, and the result of which has been the saving of the life of the mother; which would, as it appeared on evidence, have been sacrificed by the delay or omission of such operation—and we feel it our bounden duty to give expression to these sentiments, lest any, the slightest, imputation might be thoughtlessly attached to Surgeon Hayden." P. 15.

Mr. Hayden is naturally very angry that an inquest was held at all, and attributes it to the spleen of a Mr. Buckley, an apothecary, who was mortified that the medicines sold at the Bishopstreet hospital were preferred to his. There certainly appears to have been no reason for the inquest, but we could wish that cra-

niotomy was never performed without a consultation.

DISEASES AND WOUNDS OF PLANTS.

Plants, perhaps, suffer more from invermination and the attacks of insects than from any other means; yet they are subject to other diseases, both of a sporadic and epidemic kind. Some of these even bear a similitude to animal disorders, and have, therefore, received similar names, of which Wildenow furnishes a catalogue. Thus, plants are affected with atrophy, tabes or consumption, anasarca or dropsy, hæmorrhage, lepra, verrucæ, or warts, chlorosis, icterus, ulcerations, common gangrene, and necrosis, or dry gangrene, besides various kinds of deformities, wounds, mutilations, &c. &c. They are likewise subject, especially the cacti, to a peculiar kind of sudden death, called by the French "la mort," by which, when affected, a branch or even a whole plant is as rapidly destroyed as the use of a limb is lost, or

death produced in animals by apoplexy.

Plants, although they will bear judicious pruning, resent barbarous operations, and even accidental injuries. In them, as in animals, contused wounds, especially contused and punctured wounds, are much more dangerous than incised ones; of this there is an example in the adjoining green-house. It is a splendid agave or American aloe; this, which is one of its leaves, was pierced last season with the ferrule of an umbrella by one of the visitors to the garden. The parenchymatous substance became diseased; it sphacelated, and the mortification, which at first extended upwards, subsequently began to descend and travel so rapidly towards the base as to render amputation necessary. The operation was performed, but, as you will perceive on examining the plant, the mortification had previously extended in an insidious manner so far towards the centre that a fatal termination is to be feared.—Introductory Lecture delivered in Chelsea Garden, on Monday, April 27th, 1835, by Professor Burnett.

INTELLIGENCE.

SOCIETY OF APOTHECARIES.

Regulations to be observed by Students intending to qualify themselves to practise as Apothecaries in England and Wales.

THE Court of Examiners of the Society of Apothecaries of London have witnessed, with great satisfaction, the benefits derived from the course of study enjoined by them, in the increased acquirements of the candidates who present themselves for examination; and, being assured that the time is arrived when it behoves them to complete the scheme which they have long had in view, and to which they have advanced by successive and cautious steps, they now publish an extended course of study, which, although it may perhaps require her eafter some modification in the details, may be

considered, both in extent and duration, as final.

In prolonging the period of study, the Court feel confident that they are consulting the interests of the public, and that they are also acting in accordance with the wishes of the profession generally, and more especially of the enlightened body of gentlemen engaged in teaching medicine, and the various sciences connected therewith, who have, for some time past, expressed their sense of the great advantages which would result from a systematic arrangement of the sessions at the medical schools, and of the particular subjects of study appropriate for the winter and summer The Court will be solicitous to lessen whatever inconvenience may, in the first instance, be attendant upon this important change; and they will be ready to pay attention to the cases of such students as may be prevented, by peculiar circumstances, from commencing their attendance at the schools in the early part of October; the period of the year at which it is most especially desirable that such attendance should, in future, commence.

The liberality of the physicians of the London hospitals, in promptly acceding to the wishes of the Court, that students might have afforded to them a more extended opportunity of studying practical medicine, without any augmentation of expense, has enabled the Court to require an attendance of the student for eighteen months at an hospital, instead of twelve; and to this boon the physicians would add a yet more essential service, by inducing the governors of the hospitals with which they are connected, to reorganise their respective out-patient establishments, and afford to students an opportunity of studying large and important classes of disease, which are very rarely admitted within the wards of an hospital.

The great advantages which students have derived from a regular course of periodic examinations, in the schools in which this system has been adopted, associated with a systematic and combined course of reading and oral instruction, induce the Court again to press this subject especially upon the attention of teachers.

The use of a class-book, also, for each particular branch of study, would better enable the student to reduce into order the numerous facts placed before him, and to refer again and again to such points as require a sustained exercise of the powers of reasoning, for their

full and clear comprehension.

The Legislature having made an apprenticeship of five years imperative upon all students, and having permitted them to present themselves for examination at the age of twenty-one, obviously intended that the greater part of their medical education should be included within that period; and the court have great pleasure in stating, that in very many instances students have actually completed their course of study, and have been admitted to an examination, with a few weeks after the termination of their apprenticeship. It is, however, to be regretted that this advantage has frequently been lost sight of, and that a great proportion of this valuable time, and not unfrequently the whole term of it, has been passed exclusively in practical pharmacy. The court are desirous of impressing upon parents the necessity of preventing this waste of time, by making such arrangements with practitioners with whom they place their sons, as may enable the young men to commence their attendance upon lectures in the course of the third year of their apprenticeship.

The court renew their recommendation that the apprenticeship should not begin until the youth has attained his seventeenth year, and that he should previously have received a sound classical education, and have been instructed in the elements of mathematics and natural philosophy, and have acquired a knowledge of the

French, and, if possible, the German languages.

The period of apprenticeship is by no means to be considered as of small importance; during that time it is incumbent upon the master to take care that his apprenticeship keeps up and extends, by a regular course of reading, both his classical and general knowledge; it is also his duty to ascertain, by occasional examinations, that his pupil is acquiring the elements of professional knowledge; and that he becomes acquainted with the nomenclature of the profession, the manipulations of pharmacy, and the elements of osteology; whilst opportunities should be afforded him of watching the progress of disease, and of noticing the effects of remedies.

The court have reason to believe, that students would in many instances gladly avail themselves of an opportunity of passing their Latin examination upon the commencement of their studies at the medical schools; the court have, therefore, arranged a plan for that purpose, which may be adopted at the option of the student, at the time of registering his first attendance upon lectures. After this preliminary examination in Latin has been satisfactorily passed, the student will not be subjected to any tarther examination in Latin medical classics.

The Court of Examiners have only to add, that they have framed

the following course of study with especial reference to the surgical as well as medical duties which devolve upon the general practitioner when engaged in practice, and with the knowledge that students, with few exceptions, pass an examination in surgery at the Royal College of Surgeons, as well as one in medicine at the Hall; the court have, therefore, taken care to afford every facility for a strict conformity with the regulations of the College, as well as with those which they have themselves enjoined. The court exhort students not to rest satisfied with a mere formal compliance with the injunctions of authority, but to be actuated by still higher motives, and to find in these an incentive to a zealous and generous devotion of their time, their labour, and their best faculties, to the acquisition of an accurate and comprehensive knowledge of the principles of the healing art.

Every candidate for a certificate to practise as an apothecary,

will be required to produce testimonials-

· Of having served an apprenticeship of not less than five years to an apothecary;

+ Of having attained the full age of twenty-one years;

‡ And of good moral conduct.

Students whose attendance on lectures shall commence on or after the 1st of October, 1835, will also be required to produce proof of having attended, during three Winter and two Summer sessions, lectures in the following order, and medical practice from the commencement of the second, to the termination of the third Winter session.

The Winter medical session is to be understood as commencing on the 1st of October, and terminating in the middle of April, with a recess of fourteen days at Christmas: the Summer session as commencing on the 1st of May, and ending on the 31st of July.

First Winter Session.

Chemistry.

Anatomy and physiology.

Anatomical demonstrations.

Materia medica and therapeutics.

First Summer Session.

Botany; and such other branches of study as may improve the student's general education.

Second Winter Session.

Anatomy and physiology.

Anatomical demonstrations.

Dissections.

Principles and practice of medicine.

Medical practice of an hospital.

* No gentleman practising as an apothecary in England or Wales cau give his apprentice a legal title to examination, unless he is himself legally qualified to practise as an apothecary, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of his qualification from the Court of Examiners. An apprenticeship for not less than five years to surgeons practising as apothecaries in Scotland and Ireland, gives to the apprentice a title to be admitted to examination.

† As evidence of age, a copy of the baptismal register will be required in every

case where it can possibly be procured.

‡ A testimonial of moral character from the gentleman to whom the candidate has been an apprentice, will always be more satisfactory than from any other person.

514

Second Summer Session.

Botany, if not attended during the first Summer session.

Midwifery and diseases of women and children.

Forensic medicine.

Medical practice of an hospital.

Third Winter Session.

Dissections.

Principles and practice of medicine.

Midwifery, with attendance on cases.

Medical practice of an hospital or dispensary.

The student is required to attend the medical practice of a recognised hospital, from the commencement of the second Winter to the termination of the second Summer session, and from that time to the end of the third Winter session, at an hospital, or recognised dispensary.

The sessional course of instruction in each respective subject of study, is to

consist of not less than the following number of lectures, viz.:-

One hundred on chemistry.

One hundred on materia medica and therapeutics.

One hundred on the principles and practice of medicine.

Sixty on midwifery, and the diseases of women and children.

Fifty on forensic medicine.

Fifty on botany.

The number of lectures on anatomy and physiology, and of anatomical demonstrations, must be in conformity with the regulations of the Royal College of Surgeons of Loudon, on these subjects.

The lectures required in each course respectively, must be given on separate

days.

Students, when they present themselves for examination, must bring testimonials of having received instruction in practical chemistry during their attendance upon the lectures on chemistry, materia medica, or forensic medicine; and also of having attended a full course of clinical lectures, and such instruction in morbid anatomy as may be afforded them during their attendance at an hospital.

Every student will be required to produce proof of having dissected the whole

of the body once at least.

Students whose attendance on lectures commenced prior to the 1st of February, 1828, will be admitted to examination in conformity with the regulations published in September, 1826; viz. after an attendance on

One course of lectures on chemistry.

One course of lectures on materia medica.

Two courses of lectures on anatomy and physiology.

Two courses of lectures on the theory and practice of medicine.

And six months physician's practice at an hospital, or nine mouth's at a dispensary.

Those who began to attend lectures subsequently to the 1st of February, 1828, and previously to the 1st of October of the same year, in conformity with the regulations of September, 1827; viz. after an attendance on

One course of lectures on chemistry.

One course of lectures on materia medica and botany.

Two courses of lectures on anatomy and physiology.

Two courses of lectures on the theory and practice of medicine: these last having been attended subsequently to the lectures on chemistry and materia medica, and to one course at least of anatomy.

And six months', at least, physician's practice at an hospital, or nine months' at a dispensary; such attendance having commenced subsequently to the termination of the first course of lectures on the principles and practice of medicine.

Those whose attendance on lectures commenced in October, 1828, must have complied with the regulations of September, 1828; viz. by having attended

Two courses of lectures on chemistry.

Two courses of lectures on materia medica and botany.

Two courses of lectures on anatomy and physiology.

Two courses of anatomical demonstrations.

Two courses of lectures on the theory and practice of medicine; these last having been attended subsequently to one course of lectures on chemistry, materia medica, and anatomy.

And six months, at least, the physician's practice at an hospital, (containing not less than sixty beds), or nine months at a dispensary; such attendance to have commenced subsequently to the termination of the first course of lectures on the principles and practice of medicine.

All students who began to attend lectures in January, 1829, are required to have attended the physician's practice at an hospital for nine months, or at a

dispensary for twelve months, and also to have attended

Two courses of lectures on midwifery, and the diseases of women and children. Students whose attendance on lectures commenced on or after January, 1831, must adduce proof of having devoted at least two years to an attendance on lectures and hospital practice; and of having attended the following courses of lectures:

Chemistry: Two courses—each course consisting of not less than forty-five lectures.

Materia medica and therapeutics: Two courses—each course consisting of not less than forty-five lectures.

Anatomy and physiology: Two courses.

Anatomical demonstrations: Two courses.

Of the same extent as required by the Royal College of Surgeons of London. Principles and practice of medicine; Two courses—each course consisting of not less than forty-five lectures.—To be attended subsequently to the termination of the first course of lectures on chemistry, materia medica, and anatomy and physiology.

Botany: One course consisting of not less than thirty lectures.—To be attended between the 1st of April and 31st of October.

Midwifery, and the diseases of women and children: Two courses.

Forensic medicine: One course-To be attended during the second year.

Students are likewise earnestly recommended to avail themselves of instruction in morbid anatomy.

The candidate must also have attended, for twelve months at least, the physician's practice at an hospital containing not less than sixty beds, and where a course of clinical lectures is given; or for fifteen months at an hospital wherein clinical lectures are not given; or for fifteen months at a dispensary connected with some medical school recognised by the Court. No part of this attendance can be entered upon until the termination of one entire year from the commencement of attendance on lectures, nor until one course of lectures, at least, on chemistry, materia medica, anatomy, and the practice of medicine, have been attended in the order prescribed by the Regulations.

The testimonials of attendance on lectures, and medical practice, must be given on a printed form, with which students, will be supplied, on application, at the under-mentioned places:

In London, at the beadle's office, at this Hall.

In Edinburgh, at Messrs. Mac Lachlan and Stewart's, booksellers.

In Dublin, at Messrs. Hodges and Smith's, booksellers.

In the provincial towns, where there are medical schools, from the gentlemen who keep the registers of the schools.

No other form of testimonial will be received; and no attendance on lectures will qualify a candidate for examination, unless the lecturer is recognised by the Court.

The names of the lecturers recognised by the Court may be seen on application

to the several gentlemen acting as registrars in the provincial schools, and at the beadle's office at the Hall.

The teachers in London, Dublin, Edinburgh, Glasgow, and Aberdeen, recognised by the constituted medical authorities in those places respectively, are recognised by the Court; and certificates given by the medical professors in the continental universities are also recognised and received by the Court.

Gentlemen wishing to be recognised as lecturers, are referred to the following resolutions of the Court, passed on the 18th of November, 1830, viz.

Resolved,—That no member of the Court of Examiners shall be recognised as a lecturer on any branch of medical science.

That the Court will not recognise any teacher who may give lectures on more than two branches of medical science.

That the Court will not recognise a teacher until he has given a public course of lectures on the subject he purposes to teach; but if, after such preliminary courses of lectures, the teacher should be recognised, the student's certificate of attendance on that course will be received.

That the Court will not recognise a teacher until he has produced very satisfactory testimonials of his attainments in the science he purposes to teach, and also of his ability as a teacher thereof, from persons of acknowledged talents and of distinguished acquirements in the particular branch of science in question.

That satisfactory assurance shall also be given that the teacher is in possession of the means requisite for the full illustration of his lectures, viz. that he has, if lecturing—

On chemistry, a laboratory and competent apparatus; On materia medica, a museum sufficiently extensive:

On anatomy and physiology, a museum sufficiently well furnished with preparations, and the means of procuring recent subjects for demonstration;

On botany, a hortus siccus, plates or drawings, and the means of procuring fresh specimens;

On midwifery, a museum, and such an appointment in a public midwifery institution as may enable him to give his pupils practical instructions.

That the lecturer on the principles and practice of medicine must be, if he lectures in London, or within seven miles thereof, a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; and if he lectures beyond seven miles from London, and should not be thus qualified, he must be a graduated Doctor of Medicine of a British university of four years' standing (unless previously to his graduation he had been for four years a Licentiate of this Court).

That the lecturer on materia medica and therapeutics must be a Fellow, Candidate, or Licentiate, of the Royal College of Physicians of London; a graduated Doctor of Medicine of a British University of four years' standing (unless previously to his graduation he had been for the same length of time a Licentiate of this Court); or he must be a Licentiate of this Court of four years standing.

That the lecturer on anatomy and physiology must either be recognised by the Royal College of Surgeons of London, or must be a member of that College of four years' standing.

That the Demonstrator of Anatomy must either be recognised by the Royal College of Surgeons of London, or must be a member of that College.

Hospitals as Schools of Practical Medicine.

No hospital (not already recognised) will in future be placed upon the list of recognised schools of practical medicine, unless it is situated in London, or in one of the provincial cities or towns in which schools of medicine are established, and the physicians attached to it give a full course of instruction in clinical medicine and morbid anatomy.

The hospital must contain one hundred patients at least, and must be under the care of at least two physicians, each of whom must be a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London, if the hospital be ituated in London; and if in a provincial town, the physicians, if not members of the Royal College of Physicians, must be graduated Doctors of Medicine of a British university.

The apothecary of the hospital must be legally qualified, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of qualification from the Court of Examiners.

Dispensaries as Schools of Practical Medicine.

The court will recognise, as schools of practical medicine, such dispensaries as shall give satisfactory evidence on the following points, viz.

That the Dispensary is situated in some city or town in which there is a medical school recognised by the Court;

That the rules for the government of the Dispensary permit the attendance of students, and that the physicians afford them instruction and opportunities of acquiring practical knowledge in medicine;

That the Dispensary (if within the limit of the jurisdiction of the Royal College of Physicians of London) is under the medical care of at least two physicians, each of whom is a Fellow, Candidate, or Licentiate of the Royal College; and if beyond these limits, that it is under the care of at least two physicians, who, if not so qualified, are graduated doctors of medicine of a British University, of four years' standing.

And that the apothecary of the Dispensary is legally qualified, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of qualification from the Court of Examiners.

Registration.

A book is kept at the hall of the Society for the registration, at stated times, of the names of students, and of the lectures, hospitals, or dispensaries, they attend.

All students, in London, are required to appear personally, and to register the several classes for which they have taken tickets; and those only will be considered to have complied with the regulations of the Court whose names and classes in the register correspond with the testimonials of the teachers.

The book will be open for the registration of tickets authorising the attendance of students on lectures and medical practice during the first twenty-one days of October, and the first fourteen days of May, from nine o'clock until two; and for the registration of certificates of having duly attended such lectures or medical practice during the last fourteen days of April and of July.

The Court also require students at the provincial medical schools to register their names in their own hand-writing, in the order above stated, with the registrar of each respective school; and the registrars are requested to furnish the Court of Examiners with a copy of each registration immediately after its termination, as those students only will be admitted to examination whose registrations have been duly communicated to the Court.

Names of Gentlemen having the Care of the Registers.

Bath.—R. T. Gower, Esq., Lecturer on Anatomy; John Spender, Esq. ditto. Birmingham.—W. Sands Cox, Esq. Lecturer on Anatomy.

Bristol .- Dr. Wallis, Lecturer on Anatomy; Henry Clark, Esq. ditto.

Hull.—Edward Wallis, Esq. Lecturer on Anatomy; Robert Craven, Esq. ditto. Leeds.—Thomas Pridgen Teale, Esq. Lecturer on Anatomy.

Liverpool .- William Gill, Esq. Lecturer on Anatomy.

Manchester.—Joseph Jordan, Esq. Lecturer on Anatomy; Thomas Turner, Esq. ditto; Thomas Fawdington, Esq. ditto.

Sheffield.--Wilson Overend, Esq. Lecturer on Anatomy; W. Jackson, Esq. ditto.

Each student, at his first registration, will receive the printed form on which he is to obtain the printed certificates of his teachers.

Examination.

Every person offering himself for examination must give notice in writing to the clerk of the society, on or before the Monday previously to the day of examination, and must also, at the same time, deposit all the required testimonials at the office of the beadle; where attendance is given every day (except Sunday), from nine until two o'clock.

The examination of the candidate for a certificate of qualification to practise as an apothecary, will be as follows:—

In translating parts of Celsus de Medicina, and Gregory's Conspectus Medicinæ Theoreticæ:

In physicians' prescriptions, and the Pharmacopæia Londinensis;

In chemistry;

In materia medica and therapeutics;

In botany;

In anatomy and physiology;

In the principles and practice of medicine.+

The examination of a candidate for a certificate of qualification to act as an assistant to an apothecary, in compounding and dispensing medicines, will be as follows:—

In translating physicians' prescriptions, and parts of the Pharmacopæia Londinensis;

In pharmacy and materia medica.

By the 22d section of the act of parliament, no rejected candidate for a certificate to practise as an apothecary, can be re-examined until the expiration of six months from his former examination; and no rejected candidate as an assistant until the expiration of three months.

The Court meet in the Hall every Thursday, where candidates are required to

attend at a quarter before four o'clock.

The Act directs the following sums to be paid for certificates;-

For London, and within ten miles thereof, ten guineas. For all other parts of England and Wales, six guineas.

Persons having paid the latter sum become entitled to practise in London, and within ten miles thereof, by paying four guineas in addition.

For an assistant's certificate, two guineas.

By order of the Court,

JOHN WATSON, Sec.

Apothecaries' Hall; April 23, 1835.

For information relative to these regulations, students are referred to Mr. Watson, who may be seen at his residence, 43, Berners-Street, between the hours of nine and ten o'clock every morning (Sunday excepted); and for information on all other subjects connected with the "Act for better regulating the Practice of Apothecaries," application is to be made to Mr. R. B. Upton, Clerk of the Society, who attends at the Hall every day (Sunday excepted) from one to three o'clock.

It is expressly ordered by the Court of Examiners, that no gratuity be received by any officer of the Court.

- Students may undergo their Latin examination in these works at the commencement of their studies in London, by giving notice to the beadle, at their first registration, of their wish to do so. And students who are already registered will be admitted to this examination on making an application to the Court.
- + This branch of the examination embraces an inquiry into the diseases of pregnant and puerperal women; and also into the diseases of children.

BIOGRAPHY OF DR. MATON.

(FROM A CORRESPONDENT.)

THE wish expressed by the Editor of the Medical Quarterly Review, that some record of the late Dr. Maton should be entered on its pages, is in itself an acknowledgment of the useful influence which this good man exercised on our common profession. The life of Dr. Maton was not eventful, and his personal character, which formed its chief distinction, could in no way be inferred by the detail of its incidents. To that character I shall address my remarks. The esteem in which it was held by his brethren of the profession received its most eloquent illustration, in the sorrow which prevailed among those assembled at the College of Physicians, on the evening of the day on which he died. The expressions of regret for his loss were universal, and the feeling which prompted them was, in most instances, evidently deep and sincere. His life had been a reproof to many. By the good and the wise, by the earnest and the humane, by those like himself, it was then said, "We have lost from our society the one whom, taking him all in all, we could perhaps at this time the least spare. A physician, who in kindness and honour always did his best for his patient,-a brother whom we could trust,—a man on whose word we could depend." Alas! that such qualities as benevolence and integrity of purpose, assumed, in vulgar phrase, to be in all places common, and frequent as every day's life,—alas! that they should still in truth be rare, and confer distinction in our chronicle of the dead. When we mourn for one like him of whom I write, there is consternation in our Why was Dr. Maton's life thus honoured in its close by sorrow. the opinions of those with whom he had lived? How had his good name been secured? The answer is ready with all who knew him --in respecting himself he respected others. It was not by mere cleverness, by real or affected brilliancy of talent, that he won favour from the professional mind,—by no specific attribute of character or manner addressed to their vanities and infirmities,but rather by the application of a wholesome example; by an influence constant as that of the air, mild and insensibly alterative as that of the best medicines when best administered.

Dr. Maton was popular in the profession, but his popularity was not of the common, spurious kind. It was the result of good manners and of fair dealing, of integrity and firmness of principle. It was not coaxed out of others by indiscriminate familiarity, or purchased from them by an overlavish hospitality. He did not toil for universal favour by the laborious selfishness of universal good-nature, nor did he advertise for flattery by the habit of complimenting himself. The favour for which so many hunt abroad, pursued him to his retirement.

In his professional relations with the public, perhaps no physician ever acquired more individual confidence, or secured more attachment. His attention to the complaints of his suffering clients was seen to be close, his sympathy was felt to be real. In his inter-

course with the sick, he pursued no unworthy arts, and sought favour by no indirect means; ever mindful of their claims on his humanity, and of the dignity of his own position. His was not the poor vanity of buying from the affluent sick a spurious character for generosity, by refusing at undue seasons the compensation which was his due, to the detriment of those who acted with him. Of necessity, under the general laws of society, and of our profession as a section of it, being good and eminent he was disparaged by exceptions, and these his own good qualities were made to His moral excellence being acknowledged, his physic furnish. was therefore questioned into mediocrity. It has been said of him, in flippant detraction, that he was "a good man, but no physician;" "truly a most worthy gentleman, but deficient in medical science." That he was considered a good, and an eminently good physician, by the London public, is known to us all; but surely we may assume, that being a man of good abilities and sound judgment, of benevolence and industry, with large opportunities, practising honestly and earnestly, he thus, de facto, became of necessity a good physician. Undoubtedly he was a better physician than some of those who disparaged him. respect for himself, and for the art which he practised, would not suffer him to substitute assertion for argument, or vague surmises for deliberate opinion, in the consultations at which he assisted; thus he was often silent, when the brawler was heard.

Dr. Maton was conservative, rather than reforming, in his general tendencies, but he did not, therefore, refuse all change; and his reform, as far as it went, could always be trusted. Three years back, before dissection was legalised under Mr. Warburton's bill, when murder and sacrilege ministered to science, and the anatomist waited on the public executioner, Dr. Maton was forward in applying by earnest petition to the Legislature, for the protection of his medical brethren against the wrongs and outrages by which they were assailed. Among the older physicians of London, Dr. Maton was, in truth, distinguished by liberality of sentiment, rather

than by the opposite qualities of mind.

In all things Dr. Maton was good and kind. The love of Nature led him annually to her streams and mountain haunts, in this island and abroad. The study of flowers he felt to be an amiable pursuit, and therefore he became a botanist. His courtesy was of the old school, sincere, and ever watchful in reciprocating that of others. In the busiest season of the year, every note addressed to him was answered, every visit was returned. When his time became most valuable, Dr. Maton could yet always find leisure to acknowledge the most trifling civility. His extreme punctuality in appointments will long be remembered by the profession. It was remarkable, to the extent of peculiarity, but, like his love of order and neatness, it had its source in a regard for the convenience of others, and became him in his double capacity of physician and bachelor. Yet, because Dr. Maton's character was essentially amiable, let

us not suppose that it was therefore of the negative kind: its tone was firm and masculine, in harmony with that of Baillie and Heberden, of whom he was the chosen friend and associate.

By the young let it be remembered, in his epitaph, that he watched with loyal affection over the infancy and girlhood of their future Queen; while those of mature judgment, who knew him not, will find their best authority for his virtues and good sense in the confidence with which he was honoured by her illustrious mother.

I had not intended to have remarked on any particular indication of his character, but to one let me briefly allude. Dr. Maton, early in life, made himself responsible for large debts which his father had incurred, and subsequently discharged them, with their accumulated interest. But I pause in the reproof, that I am dwelling on the recollection of virtues which have never been questioned; that I am but repeating the praises which others have always been eager to concede to the excellence of my departed friend.

I find, on reviewing my portrait, that I have traced no lineament in his character, with which all who knew him have not long been familiar; that I have ascribed to him no qualities which were not his by acclamation. It was one of his distinctions that, while living, he was honoured by those with whom he lived.

Let us confidently presume, that in the annals of the College over which he occasionally presided, his virtues found an early record, and that at the "Comitia" first held after his decease, the name of Dr. Maton was mentioned by his associates for honour and in sorrow.

> "Næ illiusmodi jam magna nobis civium Penuria est-homo antiquâ virtute ac fide!"

May Fair; June, 1835.

METEOROLOGICAL REGISTER,

FROM MARCH 1, 1834, TO MAY 31, 1835.

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer		Barometer.		De Luc's Hygrometer		Winds.		Atmospheric Variations.			
	max.	min.	9 a.m.	10 p.m.	9a.m.16	pm.	9 a.m.	10 p.m.	9 a. m.	1 2 p.m.	10 p.m.	
Mar. 1 to 7	52	34	29.87	28.85	58	51	sw	wsw	snow	fine	rain	
7 to 14	53	35	-98	.85	60	51	ssw	wsw	cloudy	rain	fine	
14 to 21	54	36	30.06	29.53	60	53	N	w	rain	rain	fine	
21 to 31	54	35	.22	.53	61	50	NNE	WNW	cloudy	fine	rain	
Apr. 1 to 7	65	41	.14	.51	62	50	SSE	ssw	rain	rain	fine	
7 to 14	63	40	.16	.67	59	44	NNE	ssw	fine	fine	fine	
14 to 21	58	30	.20	.70	49	44	NW	w	fine	snow	rain	
21 to 30	59	35	.20	.25	67	46	NNW	NE	rain	snow	fine	
May 1 to 7	61	35	29.86	.36	68	50	ssw	wsw	rain	fine	rain	
7 to 14	68	44	.80	.31	70	49	sw	SE	fine	rain	rain	
14 to 21	70	45	.94	.33	70	45	E	NNE	rain	fine	cloudy	
21 to 31	63	40	.83	.06	62	44	wsw	NNW	rain	fine	cloudy	

The quantity of Rain fallen in March, was 2 inches.

April, was 96 100ths of an inch. May, was 1 inch and 78 100ths.

NOTICE TO SUBSCRIBERS.

The Proprietors beg respectfully to inform the Subscribers, that the present Number is the last which will appear under the name of the Medical Quarterly Review: they have, however, the gratification to state, that, in discontinuing the publication under that title, they have taken care that the interests of the numerous friends who have so liberally patronised it, shall not in any degree be compromised, but, on the contrary, still further consulted, by the arrangements into which they have entered. Whether the British and Foreign Medical Review be regarded as a continuation of the former publication, under a new designation and management, or as its successor in the path which it has left,—in either case, the Proprietors feel justified in recommending it to their Readers, as a work which they are confident will be found no less deserving their countenance and support.

It will be seen, by the Prospectus of the British and Foreign Medical Review, which accompanies the present Number, and to which the particular attention of the Reader is requested, that the New Quarterly Review will present considerable modifications of the plan of its predecessor; but modifications which, it is believed, will be generally regarded as improvements. The principal of these are—the exclusion from the British and Foreign Medical Review of all Original Communications, except under the form of Reviews of published works, and the extension of the department heretofore devoted to notices of Foreign Publications. Indeed, the latter arrangement necessarily involved the former.

The more extensive diffusion of the knowledge of Foreign Medical Literature seemed imperiously called for; and it was considered that, while numerous other channels were still open for Original Memoirs, the exclusion from the pages of the New Review of full Notices of Foreign Medicine and Surgery, would tend to perpetuate a most important defect in our periodical literature, which, by the new arrangement, might be satisfactorily remedied.

^{* •} It was originally intended to commence the publication of the BRITISH AND FOREIGN MEDICAL REVIEW on the 1st of October, but it has been found advisable, in order to give time to complete the necessary arrangements, to postpone the appearance of the first Number to the 1st of January, 1836. This delay will have the further incidental advantage of rendering each volume complete within the limits of the same year, a circumstance attended with some convenience in the case of reference.

The INDEX to the Volume will be delivered gratuitously on the 1st of October next.

IŅDEX TO VOL. IV.

Control of the second								PAGE
ABDOMINAL plethora .			•		•			57
Abortion; its causes and frequency								98
Acalepha								321
Acalephæ, secretion of the .	3.5							367
Acephalous child, Mr. Lawrence's accoun	it of	an						186
Ægophony			•					35
Amusements at girls' schools stiff and form								179
Anatomical forceps invented by Captain B	agno	ld						184
Anatomy, Dr. Grant on Comparative, Par	rt I.	revie	ewed				316	et seg.
Anatomy, Mr. T. Turner on the present !	State	of,						375
Aneurism by anastomosis								479
Angina serosa of children .								226
Animal magnetism .								32
Anterior obliquity of the uterus								107
Aphthæ								240
Apoplexy of the heart .								43
Apothecaries, new Regulations issued by	the S	Socie	etv of					511
Aram, Eugene, case of .								267
Arsenic, Case of poisoning by, at Bristol								390
Ascites, diagnosis of, from ovaria dropsy								249
Ascites in children, treatment of				Ų.				234
Asthma, periodic, of children		9				15		230
Asthma, Dr. Ramadge on, reviewed .							360	et seg.
Auscultation in pregnancy .								95
Dr. Williams on, reviewed		•					419	et seq.
211 Williams on Toric wou								
Bathing much neglected in England								248
Baths, Dr. Green's formulæ for medicated	1							334
Belladonna useful in spasmodic contraction		the	cervi	x nte	ri			105
successfully used in hooping of							2	259
its root used by Dr. Gölis in h					deno			229
Bellingeri on Neuralgia .	loop.		ougu			•		251
Bengal, Twining on the Diseases of, revi	ewe/	1					990	et seq.
Bladder, use of injection in inflammation of					3		200	275
Diadaci, use of injection in finalimation (JI GLI		se ex	amn	lifein	r the		277
Bleeding to be avoided during the coma of	fanil			emp	шуш	g the	,	418
Blood, Mr. E. A. Jennings' account of its				lleety	ativo	ofna	thale	
Bow (Dr.) on the Thymus Gland	Luen	usu	, as 1	liusti	auve	or pa	поп	207
					•		•	478
Brachial artery tied .	- 6 4				-hich	-44		410
Brain, Mr. Mayo on the causes of some	or t	ne sy	mpic	oms v	VIICII	atu	ena	100
diseases and injuries of the,	i		•		•		0.0	185
Brain, Dr. Jeffreys on some Diseases of				•	,	•		387
Brandt and Ratzeburg (Drs.) on Medical						120	•	445
Brodie's (Sir B. C.) Lectures on Disease	ses o	i th	e Ur	inary	Org	ans		
(2d edit.) reviewed .			•				271	et seg.
Bromine, formulæ for prescribing,			•				•	310
Bronchial glands, diseases of the,				•	1	•		421
NO. VIII.					1	n		

Bronchocele, two cases of, by Mr. Dame	eram							223
extirpation of,		•		•				477
Brugmansia Zippeli (woodcut of the)			•		•		•	141
Bubo, Rust's method of treating,		•						120
case of, nearly fatal	•							ib.
Burnett's Outlines of Botany, reviewed			•				133 6	et seq.
Burns, Rust's Observations on	•				•		•	118
C. I								200
Cadmium useful in opacity of the cornea	E.			•		•		388
Camphor in tympanitis, use of,	•		•		•		•	260
Caoutchouc; its origin and uses		•		•		•		139
its chemical composition	1		•		•		.:.	140
Calculus, Crosse on the Urinary, review							156	t seq.
Mulberry; its relative frequen	Cy		•		•		•	157
easy test for		•				•		158
its early symptoms			•		•		•	169
Calculi; their rate of increase		•		•				158
Urethral; their chemical comp	ositio	n			•			157
method of removing .							•	167-9
in the Prostate gland				•				162
Urethral	•		•		•			ib.
Calculus, Renalis, case of, by Dr. Lefev	re							247
Renal, remarkable case of							•	162
Calculi, Renal; Dr. Prout's theory of the	heir o	rigin	1					161
of the kidney, Sir B. C. Brodie	on,							279
Calomel, pathological effects of						•		418
Carditis, Dr. Stroud's cases of,								419
Carrageen Moss								400
Catalepsy, treatment of, in a child								239
Chalk ointment; its use in treating ulce	rs of	the l	eg					78
Chancres, obstinate, how to be treated								125
Chest, Dr. Williams on the ocular and n	nanua	l exa	min	ation	of th	e,		420
Children, Gölis on the Diseases of,								224
inflammatory Diseases of								ib
Dr. Walker on the Diseases of	f,							383
Cholera, treatment of, in children						1.4		231
at Bristol, Dr. Symonds' accou	int of	the,						375
Christison's (Dr.) cases of Paralysis of i				es of	the F	ace		483
Cicuta virosa destructive to kine								137
Circulation, Dr. S. Smith's account of t	he							177
Clark (Dr.) on Tubercular Phthisis, re	eview	ed	100				50	et seg.
Climate of Madeira .								265
Clinical instruction, Dr. Rust's observat	tions	on						132
Cloquet on Hernia, translated by M'W			iew	ed			180	et seg
Cobweb; its medicinal virtues extolled t								390
Codeine		, Char						305
Colchicum, precautions to be observed i	n the	use o	of			1.4		343
Colic, treatment of, in children		7					12	232
Combe's (Dr. A.) Principles of Physiol	ogy a	pplie	d to	the F	reser	vation	of	
Health, (third edition,) reviewed	65	Price						et seq.
Compress instrument, Gräfe's new			33					481
Conolly's (Dr.) Retrospective Address								369
Constipation, treatment of, in children								231
Convulsions of new-born children, treats	ment	of		1.2				239
Copland's (Dr.) Dictionary of Practical	Med	icine	Par	t III	rev	iewer	418	
Corder, case of	TATEU	one	,		.,	.cwc	, 110	268
Coriaria myrtifolia, substituted for senn	a	•		•				138
its fatal effects	u		•		•			ib.
Corpus luteum .		•		•		•		91
	ol he		•				•	255
Course sublimate, preservation of woo				•				228
Cough, simple; its treatment, in children	-11		•				•	999

INDEX.	525

		•	NDE								52
Creosote, Grafe	's opinion of										48
Crosse on Calcu										156	et seg
Croup											22
Cutaneous Abso	orption										36
Cyanuret of Po											30
Cyclopædia of A		hysiol	ogy. e	dite	d by	Dr.	Tod	d. Pa	rt I.	revie	
.,,		_,	-01)		,			.,		364	
Cynanche Tonsi	llaris of childre	en									22
Dalrymple's (M					,						45
Dameram's (Mr		Brone	choce	le							22
Dance, St. John					•						14
Dance, St. Vitu											14
Dancing Mania,									iewe	d, 146	et seg
Davies' (Dr. He	enry) Cases ex	tracted	from	the	Not	te-b	ook o	f			44
Davis's solution	of the hydriod	late of	potas	h							48
Deficiency of th	e upper and lo	wer ex	tremi	ties,	case	of	conge	enital			25
Dementia, or In											1.
	sical and mora	l cause	s of								1
	stages of, acc			r. Pr	ichai	rd					ib
Dentition, diffic	ult										22
Domeier's (Dr.		ning b	y fish								25
	account of ar										48
Diabetes, case o											24
	y known in Ru										24
Diarrhœa, treati											23
Dictionary of Pr	actical Medici	ne. by	Dr.	Conl	and.	Par	t III.	revi	ewed	. 416	
Diet ; its influer										,	13
Diseases and wo						on	the	100			51
Dress, absurditi		,	00001	Dui	nout				120		17
Duffin on Later	al Deformity	f the S	hine	rev	iewe	d				178 6	
Dysentery, use	of inecacuanh	n in	pine,	10,	LC W C	u	2	•		1.0	29
	ptoms of, in B		•		•		•	- 5	•	-2	ib
	tment of	on Bus				•			120		29
Dyspepsia, the r		irce of	cache	Rive	•		1.7			1	5
Dystichiasis, cas		400 01	Cucat	Alu							47
a jeuroananis, ous			•								
Echinoderma						4					32
Emetine											30
Electricity, cher	nical effects of					2		4	1.7	4	26
Enteritis produc					9.		6.2.4				13
Epilepsy, treatm					•				100	4	239
	kable cure of	iiu		7		•					48
Ergot of rye, en		lvantes	o by	Voln							100
	use in uterine				odu			•			245
Erysipelas treate							•		•		33
	H. Davies's cas				th th		trata	of all	won	3.0	440
Erythema, cases						0 111	uate	Or pti	VOI		32
Extra-uterine fo	etation remail	able va	pour-	oatil							9
Dana-uwille 10							•		•		
Froball and such	case of			lwyl	1	•		•		•	385
Eyeball and eyel	nas, exurpatio	n or th	е		•		•		•		47
Pagain tunn	olia Classica	deser	.41	of 11							104
Fascia transverse		descri	puon	oi ti	ie			•		•	180
Fees in Jamaica			•		•		•		•	00	435
Fever, Dr. M'C	ormac on, rev	iewed			المالية الم	•				60 6	t seq
	om a sedative i	mpress	ion o	n the	e ner	vou	s syst	em	•		6
arises fro			1								62-
local cor	mplications of	Second Property									a.
local cor Typhus;	mplications of its morbid and	atomy							•		6
local cor Typhus; treatmen	mplications of its morbid and it of	0.00			•		•				7
local cor Typhus; treatmen	mplications of its morbid and	0.00									

Fevers in Bengal				٠.				301
Fish, Dr. Domeier's case of poisoning					:			257
Forbes's (Dr.) translation of Laennec or	n Di	seases o	of the	e Che	st, re	view	ed, 33	et seq.
Forceps (Midwifery) .								112
the long .								113
Fracture of the Extremities, Mr. Hind	on,	review	ed				437	et seq.
neck of the Radius				•				438
Friction, sound of, in auscultation			•		•			36
Galvanism, Mansford's method of apply	ying	1						243
Generation; its physiology .								90
Geography of Plants								140
Gölis on the Diseases of Children							1.0	225
Gold, the salts of				4				311
Gout, Sir C. Scudamore's Principles of	the	Treatn	nent	of, re	view	ed,	341	et seq.
Gräfe's Report of the Surgical and Oph	hthal	mic Ins	stitut	ion o	f Ber	lin f	or 183	3, 474
Grant (Dr.) on Comparative Anatomy,								et seg.
Green (Dr.) on Diseases of the Skin,						1.2		et seq.
Guthrie's (Mr.) eye ointment								475
Halford's (Sir H.) on the Deaths of	som	e Emi	nent	Pers	one d	f 3	Inder	
Times, reviewed	2011	- 2		1018	J.10 (et seq.
Heart-disease, Dr. Hanna's unique cas	se of	•		•		•	411	501
Heart, rupture of the; its seat .								45
various opinions as to the origin	n of	the son	nds	of the				42
Dr. Hope on the sounds of the			inus	OI GIIC	•		•	489
Hecker on the Dancing Mania of the	he N	Middle	Ages	tra	nslat	ed 1	v Dr	
Babington, reviewed .		Tidato		,				et seg.
Hemiplegia, limited to the face and arm	of of	one sid	e. is	frequ	ent	4		194
Hemoptysis, treatment of, in children		one bra	.,	oqu			12.0	230
Hemorrhage after lithotomy .				- 0		. a.	•	173
fatal, from ulceration of t	he b	owels				•	- 4	389
Hernia, Cloquet's Anatomical Descri			ransl	ated i	by M	W	innie	
reviewed								et seq.
Mr. Key's case of Femoral, or	perat	ed on v	witho	out or	enin	r the		216
Hind (Mr.) on Fracture of the Extrem						,		et seg.
Hippocrates detailed principally his fata				21				177
Hooping-cough; opinions concerning i	ts se	at and	natu	re		13		37
use of belladonna in				7.0				259
Hope (Dr.) on the sounds of the heart								489
Howship's (Mr.) account of a Tumour,	dec.							198
case of Intus-suscept			4				-	451
Hydrocephalus, acute .								221
practice of the German	phy	sicians	in a	cute				416
chronic, tapping in						1.7		417
chronic, treatment of						-		233
partial external						•		234
Hydrocyanic ether								308
Hydrophobia, Pettigrew's Clinical Lec	ture	on, re	view	ed			143	t seq.
Post-mortem appearance					٠			t seq.
Hydrorachis, treatment of .		o ca		-		•	110 6	234
Hypochondriacism, case of .					•		•	10
A POORONALIMOISMI, CASC OI						•		10
YII. 4. 4 C TY:			Jack I			65		
Illustrations of Himalayan Botany, by N	ar. F	toyle, I	arts	V.an	d VI.	revi		
							441 e	
Imaginary new editions .							•	507
Impetigo, treated by the sulphur fume-l	bath			•				330
Indigo, effect of, in spasmodic diseases			•					259
Infarctus of the intestines, treatment of		childre	n	•				232
nflammatory action in favor its nature								68

		527
ngleby (Mr.) on Puerperal Convulsions	•	385
nguinal canal, Cloquet's observations on the	•	180
nquest at Dublin	•	509
nsanity, Dr. Prichard on, reviewed		seq.
moral	. 1	and 3
case of, in a child		11
complication of, with other cerebral disorders		20
influence of age and sex upon		21
causes productive of	•	26
its post-mortem appearances		27
theory or pathology of		30
treatment of	•	31
ntertrigo, treatment of, in children		240
ntus-susception, Mr. Howship's case of		451
odine and Hydriodate of Potass, methods of prescribing	•	309
schuria Renalis, cases of	•	251
tch, treatment of, in children	•	240
Jamaica Physical Journal, reviewed	. 427 e	t seg.
James (Mr.) on the formation of good or bad Stumps .		379
Jaundice of new-born children, treatment of	1.74	233
Jaw, spontaneous separation of the right half of the lower	1	477
Jeffreys (Dr.) on some Diseases of the Brain	150	387
Jennings's (Mr. E. A.) account of the Chemistry of the Blood, as	illustra-	
tive of Pathology	uoutu-	373
Johnson's (Dr. J. N.) Life of Linacre	W. 18	331
Johnstone's (Dr. J.) Syllabus of Materia Medica, reviewed .	440 e	
consistence (21, c), ajamas or mandia mendion, reviewou		
Key's (Mr.) cases of ulceration of the cartilages of the larynx; of	f femoral	
hernia, operated on without opening the sac; and of impenetral		
ture		t seq.
King (Mr. T. W.) on the Tricuspid Valve		503
1.11.4		100
Labiatæ, qualities of the	•	138
Labour is partly a voluntary act		100
divided into three periods, by Velpeau .	•	101
material		ib.
the diagnosis of	•	102
is sometimes suspended for a considerable period .	•	103
difficult		106
Lactic acid, method of obtaining		313
Laennec on Diseases of the Chest, translated by Dr. Forbes, review	wed, 33 6	
Larynx, Mr. Key's case of ulceration of the cartilages of the	•	214
Linacre, Life of, by Dr. J. N. Johnson		336
Linnæus; his skill in nomenclature	•	134
Litchfield's (Dr.) case of morbid adhesion of the placenta	100	449
Lithotomy, Mr. Crosse upon	. 169 6	et seq.
hemorrhage after	•	173
and Lithotrity, Sir B. C. Brodie on .	•	288
Gräfe's case of		478
Liver, diseases of the, in Bengal	•	296
abscess of the		298
Lunacy not sufficiently studied in England	•	369
Lunatic hospitals, statistics of		22
Lunatics, cases of persons falsely imprisoned as	•	269
Lying-in women, diminished mortality among		87
hospitals, decrease of mortality in	•	175
M(Cormes (Dr.) on Force reviewed	00	* ***
M'Cormac (Dr.) on Fever, reviewed	. 60 6	et seq. 19
	. 303	et seq.
magenue on the New Remedies, (Eighth Edition.) reviewed		
Magendie on the New Remedies, (Eighth Edition,) reviewed		
Magendie on the New Remedies, (Eighth Edition,) reviewed 6		

.

Magistel's (Dr.) cases of ulceratio	n of the	neck o	f the	uteri	18			240
Mania, description of .		•						12
Mannite, method of obtaining		- 641						311
Materia Medica, Dr. Johnstone's S	synabus	of the,	revi	ewea		•	440	et seq.
Materialism; its groundlessness Maton (Dr.) character of .	•	•		•				404
Mayo (Mr.) on the Causes of some	of the	Sympto	me n	hich	otto	nd Di		519
and Injuries of the Brain	or the	Sympto	illis v	поп	atte	וע ביו	sease	185
Mayo (Mr.) on the structure of the	Placer	nta		•	1	•		218
Measles, treatment of, in children								239
Meconine								305
Medical Zoology, Drs. Brandt and	Ratzebu	irg on,	revier	ved				445
Medico-legal disinterments								266
Medulla oblongata; its offices								196
Menstruation; its physiology								89
Mercury cures Syphilis, but does no		nt it		•				125
Mercury an uncertain remedy in fev	er		•					72
Meteorological Register				•			2	70, 521
Middlemore's (Mr.) Essay on Ptery		whom F	T.	d			•	383
Report of the	Ditmini	guain E	ye II	штив	iry		05	388
Midwifery, Velpeau on, reviewed improvement of	-25			•			90	et seq.
Monomania		•		•		•		7
Mortality in hospitals, not an index	of gene	eral mor	talit	9	100			176
Mountcashell (Lady) on Physical F							423	et seq.
Morphia, and its salts						•	1000	303
Muriate of ammonia used internally	for infl	lammati	ion o	f the	pros	tate		121
Music to which the Tarantati dance	d				100			154
Mustard seeds, volatile oil of black								315
37.1 D 1 C1.11 M. J.								
Nakra; a Bengalese febrile affection	n	•		•		•		302
Narceine Nerves are media of transmission on	1		•		•		•	305
Nervous System, Walker on the, re-				•			18	187
Neuralgia, Bellingeri on	vicueu.	10 25	•		•		40	et seq. 251
Nose, restoration of the, from the sl	kin of t	he arm		•		•		475
Notices	27	O, and	Adve	rtisin	g Sh	eet in	No.	
Notice to Subscribers .			1.					522
Nux vomica; its resin								303
Opium, English, Morson on the stre	ength of		•					184
Opium, poisoning by, in a child		•		•				233
Opium, new principles discovered in	4 - 5				•		•	305
Opium-eater, Dr. Domeier's accour				•		•		482
Optic Nerve, case of paralysis of the Otic Ganglion			•		•		•	486 375
Otte Ganghon		•				•		236
Outlines of Botany, by Professor Bu	rnett. r	emenned	,		N.		133	et seq.
Ovum of ten days, containing an em		ootcaca			٥.		100	115
Oxalate of lime found in the tubuli			20		164			160
Palmares (Palms and their allies)								142
Palpitation, treatment of, in children								230
Palsy; how produced by a lesion of								188
Palsy; why produced on one side of t	he body	by a le	sion	of the	e op	posite	side	6.2
of the brain						•		189
Palsy of the leg less complete than t			in he	miple	gia			193
Palsy, muscular, more frequent than		lesia		•		•		195
phenomena of, slow attack of			•					195 479
Paraguay Roux; a specific for the to Paralysis, general, complicated with				•		•		17
ratalysis, beneral, complicated with	шванич							

Paralysis of individual nerves				ristisc	n's c	ases	of		483
Pelvic bones; their separation	during	pregi	nancy			• 1			94
Pelvis, case of fractured									505
Penis, amputation of the	•					•			478
Percussion, mediate .	Land.		1.60						33
Perineum, best method of sup						•			104
Perspiration; its effects in rel									182
Pettigrew's Clinical Lecture					l		•		et seq.
Philosophy of Health, Dr. S.		n the	, revie	wed			•		et seq.
Phthisis, Dr. Clark on, review	oed	•		•		•		50	et seq.
Phthisis, its complications		•	7.200			•			52
Physical Education, Lady Mo						· ·		423	et seq.
Physiology, Principles of, app	plied to	the	Preser	vation	10	Heal	tn, b		
Combe, (third edition,) rev	iewea	D	· .		,		•		et seq.
Physiology, Dr. Elliotson on	Human,	, Par	t 1., re	viewe	ı	•		395	et seg.
Pineales .			CI			•		•	142
Placenta, Messrs. Mayo aud S							•		218
Placenta, Dr. Litchfield's case		rold A	Adnesi	on or	the			•	449
Plasters, Rust's Observations	on		•		•		•		117
Platinum; the salts of				•		•		•	313
Plucking, two cases of, in the						4.4			340
Pneumonia; what part of the		it m	ost coi	mmon	ly se	ated	ın r		39
stethoscopic sign	s of		•		•		•		39
Pneumonia of children	•	•		•				•	225
Polygastrica .	1.4				•		•		318
Polypiphera		2.4			4.3	•		•	319
Polypus of the mouth, of unus	ual size	, succ	cessfull	y trea	tea		•		476
Poriphera	•			•		•		•	318
Porrigo, treatment of, in child					•		•		239
Potatoes preserved by immersi	ion in ar	nmor	nacal v	vater		•		•	183
Pregnancy, apparent					•		•		97
alteration of the ce			ring			•			92
mistaken for hepat	ic disea	se	•		•		•		98
symptoms of	•	•				•		•	94
auscultation in			•		•		•		95
Presentation of the trunk of the				•		•		٠.	108
Prichard, Dr. on Insanity, rev							•	1	et seq.
Prolapsus of the rectum, treat	ment or,	ın cı	maren			1.0		•	233
Prostate, inflammation of the,		muria	te or a	mmor	na in	,	•		121
Prostate gland, scirrhus of the						•		•	285
Prussic acid, cases of poisonin			•		•		•		307
Pterygium, Mr. Middlemore's			- 2	•					383
Puerperal Convulsions, Velper		eview	ea		•		•	341	et seq.
	arieties					•		•	349
	ation ar						•		354
	nortem a			arter		•		•	356
	d of trea				•		•		ib.
	ngleby o	n		•		•		•	385
Pulmonary Apoplexy					•		•		38
Pupil, formation of artificial,				•					474
Purgatives, use of .			•		•		•		246
D-Maria Datum (mariant of 4	1.1								141
Rafflesia Patma (woodcut of t	ne)			•				000	141
Ramadge (Dr.) on Asthma, re	eviewed			· book	•		•	360	et seq.
Red precipitate; its surprising								•	121
Renal symptoms, simulated by	aneuri	im of	the ac	rta			•		283
Rhubarb stalks, syrup of	•	•		•		•		•	258
Rhubarb, varieties of			•		•				264
Rickets, treatment of	·		D		, ,,,,				236
Royle's Illustrations of Himal	ayan Bo	tany	Parts	v. and	IVI.	, rev	ewed	, 441	
Rumsey (Mr.) on an Epidemi	c ocaria	una							376

Rust's Essays on Medicine, Surgery, and State	e Me dic	ine, V	ol. I	., revi	ewed	,116	et seq.
Scarlatina, treatment of, in children	•		٠				239
Mr. Rumsey on an epidemic		•		•		•	376
Scrofula, treatment of	•		•				234 235
스틱에 가득 그리면 하면 가는 가는 사람이 가는 것이 되었다.	atmont	of C	ont .		nad	211	
Scudamore's (Sir C.) Principles of the Tre							328
Sea-bathing, Hufeland's estimate of its adv. Self-supporting Dispensaries do not always					useas	es	370
Selwyn's (Mr.) case of Extra-uterine Fœta	tion	t thei	nscr	103			382
Sinapis Nigra and Alba; their uses	uon					•	137
Skin, chronic tension of the, treatment of			•		•		237
Skin, Dr. Green on the diseases of the, revi	enned	•		•		394	et seg.
Smith (Dr. Southwood), on the Philosophy		th V	ol I	rem	enned		
(Dr. J. Gordon), Biography of	or rica	ш, т		, , , ,	curcu	,	371
Solanine					•	0.	301
Sounding, Mr. Crosse's directions for		•			2	•	166
Spender on ulcerous Diseases of the Leg, re	erierred		•			73	et seq.
Sphygmometer, Dr. Hérison on the, tran			r F	. S.	Blu		
reviewed	istatou	., I			Diu		et seg.
Spinage, case of St. Vitus's dance cured by		•		•		101	132
Spina ventosa, case of .		•					202
Spinal Marrow, inflammation of the, in chi	ldren		•				227
Spine, curvature of the, may coexist with a		rmad	nalvi				88
Dr. Duffin on lateral deformity of th			pervi			178	et seq.
Spleen, diseases of, in Bengal .	e, revie	weu				110	298
	•		•				7.7
Spontaneous evolution of the Fœtus				•			109
Dr. Denman's opinions on							261
Stammering, and its cure				•		•	218
Stanley (Mr.) on the structure of the Place	enta				•		425
Stays, their absurdity		•				•	227
Stomatitis in children .	tion	20			•		495
Strangulated hernia, Dr. Herpin on the re-	auction	OI		•			217
Stricture, Mr. Key's case of impenetrable	41-1-5	411			•		273
Strictures of the Urethra, Mr. Stafford's me	tnoa or	aivid	ing			•	459
Stroud's (Dr.) cases of Carditis	•		•		•		
Strychnine, salts of				•			303
case of paralysis cured by			•		•		384 179
Studies at girls' schools, destructive of heal				•			379
Stumps, Mr. James on the formation of go	od or b	au,			•		230
Suffocation, periodic, of children	h	•		•			328
Sulphur fume-bath, case of impetigo cured	by		•		•		119
Sulphuric Acid, Rust's case of poisoning by						•	243
Supernitrate of Mercury, the best caustic in	uicera	tion (or the	e uter	rus		375
Symonds (Dr.) on the Cholera at Bristol				•			390
(Dr.) account of a case of Poison	ing by	Arsei	ııc				124
Syphilis, Rust's observations on .				•		•	128
treated with muriatic acid and lov	v diet		•		•		129
its varieties, how to be treated		•		•			333
treated by sulphureous fumigation	n		•				200
m							152
Tarantism		•					428
Tetanus and Trismus, cases of			•				454
Traumatic, Mr. Dalrymple's case	OI	•		•		•	508
Thought, Dr. Haslam on the Rapidity of							311
Thridace (Extr. Lactucæ)		•		•		•	207
Thymus Gland, Dr. Bow on the			•		•		243
Tic Douloureux, cases of, from the Ameri	can Jou	irnai		•		•	
Tigretier, the dancing mania of Abyssinia						0.24	154
Todd's (Dr.) Cyclopædia of Anatomy and P			art I	., revi	ewed	, 301€	250
Tracheotomy performed thirty times by Dr	. Trous	seau					250 -

Transactions of the Society for the Encourage Part I., reviewed	ngem	ent o	f Ar	ts, &	c. V		et seg.
Transactions of the Provincial Medical and	Surgi	cal A	ssoci	ation	. v	ol. Il	
reviewed	•		•		•	308	et seg
Tricuspid Valve, Mr. T. W. King on the			•		•		503
Trismus; its fatality among children		•		•		•	239
Trusses, Forster's improvement in,	•						184
Tubercle, stages of the formation of	1	•		•			40
Tubercular Cachexia, treatment of	•		•				58
Tuberculous disease in animals .							53
diseases; how to be prevented							57
Tumour induced by Hemorrhage, &c., Mr. H	lows	hip's a	accou	nt of	a		198
a similar case, narrated by M. Bresci	het						204
extirpation of a steatomatous							478
Tumours, subcutaneous lymphatic							236
sanguineous of the head							ib.
bony, of a scrofulous nature,		5					235
of the neck, cases of .			. 7				255
Turner (Mr. T.) on the present state of Ana	toms	,					375
Turning, and bringing down the head							111
Twining on the Diseases of Bengal, reviewed	1	100		1.5		200	et seq.
Tympanitis, use of camphor in,	•		•			200	260
Tympanius, use of campuol in,				•		•	200
Ulceration of the neck of the Uterus, cases of	f						240
Ulcers of the Leg, Spender on, reviewed						73	et seq.
Ulcers of the leg, classification							76
treatment of .		. 2		- 1		12.	77
method of dressing		12.0	100	1			81
Ulcers, Rust's division and treatment of	•				•	191	et seq.
		•				121	134
Upas tree, account of the	•		•		•		286
Urethra Forceps, directions for using			41.	1		D.1:4	
Urinary Organs, Sir B. C. Brodie on the d	isease	28 01	tne,	(seco	ona .		
reviewed	•		•		•	271	et seg.
Uterus; its changes during pregnancy		•		•		•	92
cause of its dilatation during pregna	ncy				•		93
Vagina, case of atresia of the .							245
accidental occlusion of the							488
Vapour bath, a preventive of diabetes							248
its great advantages							326
Varicose veins are the cause of the varicose u	lcer						74
Velpeau's Traité des Accouchemens, reviewe			14.			85	et seq.
Velpeau on Puerperal Convulsions, reviewed							et seq.
Venous circulation of the anterior abdominal		anoi	malie	e of t	he		365
Ventilation inadequate, in public rooms	waii,	anoi	marie	3 01 1	шс		182
Veratria ointment in gout .		•		•		•	346
Veratrine	•		•		•		307
		•		•		•	
Vomiting, treatment of, in children	•		•		•		231
Walker on the Nervous System, reviewed						46	et seq.
Walker's (Dr.) Observations on the Diseases	of C	hildr	en				383
Warm bath, the best palliative for the incurab				age	-		328
Washing new-born infants, best method of				-00	1		423
Williams (Dr. C. J. B.) on the Pathology an	d Di	nonos	is of	Dise	ngpe	of th	
Chest (3d Edit.) reviewed	2 2011	5.10	,10 01	100	udea		et seq.
Wolsey; account of his last illness			•		•	110	412
Worms, treatment of, in children .							232
" orms, acameneor, in children				•			202

NO. VIII.

LONDON: PRINTED BY J. AND C. ADLARD, BARTHOLOMEW CLOSE. .



